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ABSTRACT

"OATYC Journal," published by the the Ohio Association of Two-Year Colleges, is designed as a forum for the exchange of concepts, methods, and findings relevant to the two-year college classroom. Along with commentaries and letters of reaction from the readership, the two issues of volume X present the following articles: (1) "Focus: Jefferson Technical College Mission Unchanged," by Michael P. Joyce; (2) four articles selected as outstanding from previous issues; (3) "Continuing Education and the American Workforce: Report of the National Advisory Council on Continuing Education"; (4) "Issue: Should Higher Education Be Involved in Programs for Children?" by Andrew M. McGreevy and Edward F. Geiger; (5) "Cuyahoga Community College's Partnership with the Cleveland Business Community," by C. Russell Cooper; (6) "Focus: Marion Technical College, Increasing Productive Capacity," by Jan Petras; (7) "Reaching for Excellence: Ohio Has What It Takes!" by Elaine Hairston; (8) "Issues Surrounding CAI (Computer-Assisted Instruction), AI (Artificial Intelligence), and Micro-Computer Support for Instructional Processes in Higher Education," by Judith D. Gentry; (9) "Some Practical Points for Two-Year College Lobbyists," by Darrell S. Willey and James L. McLaughlin; (10) "Competency Testing and the Search for Excellence," by David P. Ericson; (11) "Developing Thinking Skills in the Composition Classroom," by Betty M. Dietsch; (12) "Computers in the Composition Classroom," by David M. Humphreys; and (13) "Issue: How Far Should the Two-Year Colleges Go to Provide Student Activities?" by William Hussey and Jim Russell. (EJV)

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THE OHIO ASSOCIATION OF TWO-YEAR COLLEGES

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OATYC JOURNAL

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VOL. X No. 2 Spring 1985

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OHIO ASSOCIATION OF TWO-YEAR COLLEGES

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Tenth Anniversary Edition

JOURNAL

VOL. X NO.1 FALL 1984

THIS ISSUE

COMMENT

TEXT

Focus: Jefferson Technical College — Mission Unchanged

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Dacum Study: Technical Writing

What Works Best in Developmental Education

Interdisciplinary Social Sciences: A Pillar of General Education

PLUS ONE

Continuing Education and the American Workforce

FORUM

Issue: Should Higher Education Be Involved in Programs for Children?

PRACTICUM

Cuyahoga Community College's Partnership with the Cleveland Business Community

REACTION

Merit Pay

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OATYC Provides:

— Collective influence on the future direction of Ohio's two-year campus system;
— Access to low-cost classroom liability insurance protection of $300,000;
— An open forum for the discussion of trends, problems, accomplishments, and challenges unique to state-assisted, two-year campuses;
— A newsletter which informs members of the proceedings and activities of the OATYC and of Ohio's two-year campuses;
— The *Journal* which provides an opportunity for publication and exchange of scholarly views and concepts;
— Conference and workshops providing opportunities for professional development, visits to other two-year campuses, presentation of papers, and socialization with other two-year campus personnel.

Purposes:

— To provide a forum in which all state-assisted, two-year campuses can meet to discuss and resolve mutual problems;
— To foster cooperation and communication among Ohio's institutions of higher education;
— To provide the viewpoint of the state-assisted, two-year campuses to the Ohio Board of Regents and to the State Legislature;
— To identify and improve the status, prestige, and welfare of all state-assisted, two-year campuses in Ohio, and to other activities which will increase the contribution of state-assisted two-year campuses to Ohio's total educational process.

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OF THE
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VOL. X No. 1 Fall 1984

The *Journal of The Ohio Association of Two-Year Colleges* is published by the Association to provide the two-year colleges of Ohio with a medium for the sharing of concepts, methods and findings relevant to the two-year college classroom and to provide an open forum for problem discussion and review.

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Rae Rohfeld

COMMENT

The *OATYC Journal* enters its tenth year at a time of active discussion and innovation on Ohio's two-year campuses. In recognition of the occupational changes occurring in the state and the nation, our institutions are adding programs in high technology, dealing with new configurations in health service occupations, and considering the appropriate mix of technology, humanities and social science. It is a challenging period, not always comfortable, but providing opportunities for creativity and involvement in change. The *Journal*, with your help, will continue to grow as a stimulating forum in which to communicate our thoughts, research, and experience in these vital areas.

The fall conference in Cleveland provides another opportunity to consider the developments occurring in our institutions. This year's theme, "Beyond 1984: Forecasting for the Two-Year College," offers a chance to discuss the impact of brain research, classroom technology, new global relationships, and external social forces on the services of our colleges. Exciting speakers from the Ford Foundation and the Ohio Board of Regents will propose prospects and opportunities of the next decade. Participants will also have time to enjoy displays, informal visits, and discussions.

Please review the conference program inside, and send your registration, if you haven't already done so. Hotel accommodations, with special conference rates, have been arranged at the Holiday Inn at East 22nd Street and Euclid Avenue. The conference rates will apply through the weekend, so consider enjoying the sports, cultural events, and sites of Cleveland after the conference. We look forward to seeing you at the Metropolitan Campus of Cuyahoga Community College for what we believe will be an outstanding program and an enjoyable time.

Rae Rohfeld
OATYC
President-Elect

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TEXT

Focus:
Jefferson Technical College
Mission Unchanged

Michael P. Joyce

The JOURNAL *highlights a two-year college in Ohio in each issue. In this edition the* JOURNAL *focuses on Jefferson Technical College and its eighteen-year involvement in the economic development and redevelopment of business and industry as well as in the retraining of the large numbers of dislocated workers in the local population. The College serves as a Small Business Resource Center and is committed to the economic revitalization of the local economy.*

Jefferson Technical College was chartered for operation by the Ohio Board of Regents in September 1966. Creation of the College was based on the findings of a 1965 Battelle Memorial Institute Study, financed jointly by the Jefferson County Commissioners and the Steubenville Area Development Council, which indicated the need for post high-school training in the Steubenville area. The campus is located on an 83 acre tract of land obtained from the Jefferson County Commissioners in the northwest section of Steubenville. Area acceptance and support for the College was confirmed in fall 1966 when the voters of Jefferson County approved a one-mill levy to assist in the support of the facility. Jefferson Technical College continues to be the only technical college in the state with an operating levy.

The basic mission of the College remains unchanged over its eighteen-year history.

The College summarizes this mission in the following four goals:

1. To provide semi-professional education for the area's youth and adults in Business, Engineering, Health, Secretarial and Public Service technologies.
2. To provide resources, programs, and courses for the upgrading and updating of skills and knowledge among currently employed residents of the area.
3. To provide, in all programs, knowledge as demanded by new technological changes and current business, industrial and professional practices.
4. To provide sufficient general education to allow the semi-professional technician to communicate effectively and assume personal and social responsibility in a democratic society.

The College's operating philosophy is that by utilizing a body of knowledge of the past, combined with work experience in the present, instructional programs can be presented to adults to prepare them for participation as members of society who implement projects as an integral part of a professional team. This type of education has a premise that, with a majority of the faculty having significant personal experience in occupations other than education, the emphasis is on experience which enables each person to enter a desired occupation after a relatively short period of time. Increased personal and social responsibility, as well as knowledge and self-direction, should also be important parts of the student's education. While the major goal of the instructional programs at the College is immediate job entry, all effort is made to present training at a level that students, if they desire, may apply it to a baccalaureate degree in a technical field.

In meeting the occupational education needs of its students, the College has demonstrated a commitment to establishing effective student support services in addition to the instructional program. Because many adult students face substantial obstacles to obtaining their career objectives, the College recognizes that without a good counseling program and other student services, many local residents would or could not utilize the training programs offered by the school.

From the time the College admitted its first class of 320 students in the fall of 1968 until the present, the school has experienced a steady increase in the student population, the program offerings and the size of the physical plant.

Fall quarter 1983 marked a high in student credit course enrollment with a headcount of 1822 and an FTE count of 1208. Seventy-eight percent of the student population resides in Jefferson County with the remainder coming to the College from surrounding Ohio, West Virginia and Pennsylvania counties. During the last sixteen years over 15,000 area residents have registered for credit coursework at the College. With the entire adult population of Jefferson County numbering around 47,000, it is apparent that a significant segment of this population has availed itself of the training opportunity provided by the College.

Supplementing credit course enrollment are those individuals enrolling in non-credit classes which the College has offered since 1974. Annually an average of 1,3000 persons enroll in the occupational and non-occupational programs offered through the Continuing Education Division. Chief among the accomplishments of this Division are the ongoing inservice training programs the College offers to employees of several of the largest employers in the Steubenville Standard Metropolitan Statistical Area.

The College offers thirty separate and distinct programs and majors within the Business, Engineering, Health, Secretarial and Public Service fields. Included in this number are several unique majors. The College offers the only two-year Metallurgical degree program in the state. Two Health majors, Dental Assisting and Respiratory Therapy, are available to all residents in southeastern Ohio through a consortium arrangement which permits students to fulfill many course requirements on their home two-year campus while coming to Jefferson Technical College for only the "hands on" degree-related training.

To accommodate the increases in enrollment and expansion of program

offerings, the physical plant has been enlarged. Today the College has approximately 128,726 square feet of floor space under one roof. Outdoor facilities include tennis, volleyball, and basketball courts.

Assessing the future, the College anticipates substantial involvement in the economic development and redevelopment of business and industry and in the retraining of the large number of dislocated workers among our local population.

To meet these objectives, the College will build on linkage already established with local major market employers to retrain the local workforce so that they can make the transition to more automated manufacturing processes being installed to improve the competitive posture of local industry. The College plans to restructure its Engineering course offerings in the areas of Robotics, Non-Destructive Testing, Computer Assisted Management and Computer Assisted Drafting to meet the changing needs of industry. To support instruction in these areas, the College has already committed substantial funds to the purchase of equipment to support these programs.

Through its position as a Small Business Resource Center, the College plans also to increase its service to this segment of the local economy by offering instructional programs and through the Ohio Technology Transfer Organization (O.T.T.O.), by serving as a broker for information and services needed by small businesses.

Despite the College's commitment to the economic revitalization of the local economy, it is recognized that a large number of area residents will be required to undergo career change and must look outside of our community for employment. To assist these individuals, the College has worked with local social service agencies and labor unions to provide career counseling and planning services. The College took the lead in implementing the Job Training Partnership Act Program in the county and continues to be primary provider of training and other support services to J.T.P.A. clients. The Placement Office at the College has instituted a relocation assistance program to help graduates both locate job opportunities throughout the United States and address some of the practical and psychological problems enountered in relocating for employment.

Jefferson Technical College has, over the last eighteen years, developed into one of the major resources in the movement to improve our community and revitalize local industry. As the College matures, activity will be directed at expanding and consolidating this role in order to achieve the expectations of area residents.

Michael P. Joyce
Dean of Student Affairs
Jefferson Technical College
Steubenville, OH 43952

Articles of Excellence: 1974-1984

To celebrate the tenth anniversary of OATYC, the officers and the Editorial Board of the JOURNAL have reviewed the past issues of the JOURNAL and have selected the following four articles as the most outstanding. Criteria used in the selection were relevance to the two-year college, timeliness, originality and depth, and applicability to the classroom. To reward good writing, and to encourage future writing, the officers and board have awarded $100 for the best article, $50 for second, and $25 for third. However, the voting was tied on a third-place winner; thus the JOURNAL *is proud to print and award all four articles.*

First Place: Part-Time Faculty In The Two-Year College

Mary Anne Oestreich
(Fall 1982)

"What shall I do for a living!
I've only one life to live."
—Rudyard Kipling

When Rudyard Kipling wrote these lines, he may have envisioned them as coming from the lips of a soldier, farmer or barmaid. He certainly would not have associated them with part-time teachers. Nevertheless, they mirror the thoughts of thousands of such people who find themselves doing part-time work.

Major trends in the economy have always affected the two-year colleges. Inflation, the high cost of energy and the reduction in the annual growth rate of state appropriations have forced administrators to look for ways to trim their budgets. One such possibility which has proved highly successful is the increased reliance on the part-time faculty.

During the 1960's with the great influx of students to the two-year colleges, colleges depended on the services of the part-time faculty. This dependency has increased over the years so that the growth of part-time faculty has exceeded that of the full-time. In the majority of community colleges today, part-time instructors now constitute a majority of faculty. *The American Association of Community and Junior Colleges Directory* lists 104,777 full-time and 137,064 part-time instructors.

The reasons are given for this increase in the employment of part-timers: The first is that a college can save substantial amounts of money, and the second is that through this policy the college can increase its flexibility.

The part that money plays is easily seen. Part-time instructors cost a college considerably less than full-time teachers. The former, paid on an hourly rate, generally receive one-third to one-half of the salary paid to full-timers who teach the same courses.

Part-timers save an institution money because of their lower wages, and by their exclusion from any fringe benefits. Sick leave provisions, retirement programs, health and life insurance are not available to part-timers. Other benefits such as office space and secretarial assistance may also be denied them.

Flexibility in curriculum and scheduling is another premise for employing part-time instructors. They can be used to staff courses whose enrollments are uncertain, thus enabling an administrator to cancel a course or an instructor's contract with little cost to the college. Part-timers with special skills can also be hired for regular or nontraditional courses scheduled in a variety of off-campus locations and at a variety of times such as weekends or evenings.

Administrators feel that the salary differential between part-timers and full-timers exists because part-timers perform few services other than meeting their classes. These instructors are not required to serve on any committees. It must be acknowledged that serving on committees takes a considerable amount of time, and time is an important factor in any employment.

A stereotypical idea of the part-timer is that he or she is not interested in

committee work because he or she has another full-time job and only takes the teaching position at a two-year college for "fulfillment."

On the contrary, part-time teaching is the only employment available for many instructors. Some put together a teaching schedule at two or more colleges which would more than equal the teaching load of a full-time instructor. However, because of hourly pay, there is no reimbursement for preparation time or counseling students; consequently, their compensation is considerably less than another with a comparable teaching load.

The increase of part-time faculty members in the two-year colleges has given rise to a proportionate increase of research in the comparison of full-time and part-time instructors. The study done by Cruise, Furst and Klimes (1980) indicates that "there were no statistically significant differences between the two groups on the evaluations as a whole . . . One could conclude, then, that at this community college part-time teachers are just as effective as full-time teachers at a lower cost" (p. 55).

There are others, however, who maintain that part-time instructors are more effective than their full-time peers. Part-timers frequently put forth more effort in preparation and teaching because they must satisfy the needs of their students. If students shy away from a particular part-timer's class, that instructor is soon out of a job. Anyone protected by tenure is not under the same presssure; he retains his position even if his students drop out.

Frequently the enthusiasm and new ideas of part-timers can spread to the "deadwood" in the full-time ranks. Part-timers can often bring fresh ideas because of an awareness of the newest trends in business and industry. Instructors who have been teaching the same classes in the same institution for years may have a difficult time competing with this enthusiasm.

If an institution employs many part-timers, for the benefit of these instructors, the good of the students and the reputation of the institution itself, that college should provide adequate training for its instructors. Although this seems to be a reasonable expectation, many community colleges have not developed orientation programs to meet the needs of part-time faculty.

A well-developed training program should have excellent teaching as a major emphasis. It should present the policies for class attendance, grades and examinations. Besides these factors, there ought to be training for the part-time teacher in the instruction of the nontraditional student. A teacher training program can encourage the new instructor to use different methods of instruction and student evaluation when that person is working with the older adult, high-risk or handicapped student. Administrators are responsible for the quality of education in their institutions. If numerous part-timers are employed, they will need to receive adequate training.

There are some part-time staff who are in a constant flux. They have no intention of staying at one college for any amount of time because of outside employment or other work choices. Most two-year colleges have, however, that group of part-timers who have remained at the college for a substantial number of years , have demonstrated a commitment to the institution and who tend to act as a stabilizing element in any department in which they teach. These instructors should be recognized for their part in the growth of the institution and be adequately reimbursed.

While recognizing the inadequacies of the part-time system, many instructors are realistic enough to know that in the current educational situation there is a greater supply than demand for instructors. Statistics show that at least through 1985, there will be keen competition for any teaching position at the university or two-year college level because the supply of masters and doctoral candidates will more than meet the demand.

Because of this inability to change from the status of a part-timer, many instructors consider themselves at the academic nadir. They feel they are an expendable commodity, and, therefore, not fully accepted in the world of the two-year community college.

This issue of frustration brings to the surface some important questions: How can part-timers, who do essentially the work of the full-time faculty, be accepted as an integral part of the community college? Is it unreasonable for part-timers to expect compensation for out of class-time work such as correcting papers or counseling students? Is it possible to offer merit pay to part-time instructors who excel at their jobs?

By all indications part-time instructors are not only here to stay at the community college but will continue to grow in number. This marriage between the two may not be one of bliss but it certainly is one of mutual dependency; the colleges need the services of the part-time faculty, and the faculty need the colleges for their jobs.

If one relies on the other, each must give what is fair and just. For the salary they receive, part-timers will have to continue to bring enthusiasm, imagination and expertise to their classes. At the same time, community colleges can analyze their compensation practices toward part-time instructors. Are these institutions taking more than they give?

Mary Anne Oestreich
Part-Time Instructor
Columbus Technical Institute
Columbus, OH 43215

Second Place:
DACUM Study: Technical Writing

Timothy Nolan and Marc Green
(Spring 1982)

Introduction

Over the past several years, colleges and universities hoping to establish degree programs in technical writing faced a number of problems that they had to resolve individually if their efforts were to be successful. One of the more serious was the absence of published research information analyzing the technical writer's profession or defining entry level skills. Another problem was that a number of states, Ohio included, had no guidelines to determine at what level technical writing programs should fit into higher education or to evaluate the quality of proposals state institutions were submitting for approval to begin their own degree programs.

The method we used to solve these problems at Cincinnati Technical College was to have a group of technical writers analyze their jobs. In order for the analysis to be successful, these professionals would have to represent a wide range of companies and organizations because students entering such a program would major in a number of areas and work for employers who specialize in a variety of fields. While providing a valuable service to the educational community, these individuals would also be contributing to the growth of their profession as well as their own professional growth. For the analysis of the technical writing profession, we chose the DACUM Process.

Definition of DACUM

DACUM is an acronym that means *Developing a Curriculum*. Basically DACUM consists of an analysis of an occupation developed through a modified brainstorming process by a panel of expert workers from that occupation under the direction of a qualified coordinator. The DACUM process produces a single-sheet skills-profile of an occupation which is called a DACUM chart. This occupational profile serves as a tool for curriculum development and program evaluation. The chart presents systematically an entire occupation in terms of skills that workers must display to achieve competence.

The DACUM process is a type of "task analysis" approach in a systematic model of curriculum development. Although many models have been adapted from this process, especially in Canada, it is distinguished from other methods of program development and evaluation by two definite characteristics. First, a panel of experts from the occupation analyzes their jobs in a systematic approach; and second, the result of their analysis is produced in a graphic chart to be used for various educational and training purposes.

DACUM Workshops Assumptions

Three assumptions provide the foundation for an educational philosophy that stresses the importance of occupational task analysis by the actual practitioners

1. Any job can be described in terms of the actual tasks that a worker performs.
2. These described tasks have implied knowledge and attitudes that workers must possess to perform the tasks accurately and successfully.
3. In any occupation, expert workers are the most capable persons to describe their own own jobs in terms of skills and tasks.

Panel Selection

The success of a DACUM workshop centers upon a panel that represents the service area/community; therefore, the logical starting point for identifying such persons was the Cincinnati-Dayton Chapter of the Society for Technical Communication. From a membership roster, the chapter president identified a number of technical writers from Southwestern Ohio who were committed to excellence in their profession and would be qualified for such an undertaking. From that list, nine volunteered to serve on the DACUM panel to describe their jobs. The criteria for panel membership are listed in the table.

Table 1. Criteria for Panel Membership

Company Size*	Type of Industry	Special Factors
	Computer	Private Small Business
Medium	Electronics	Large Corporation
Large	Manufacturing	Local Business
	Publications	Federal Contracts
		Graphics Specialist
		Technical Specialist
		Award Winner

*Small	fewer than 100 people
Medium	100 to 500 employees
Large	more than 500 employees

The panel itself included the following people:

Mark D. Albert, Associate Editor, *Modern Machine Shop* magazine, Cincinnati, Ohio

Norma E. Allen, Editor, Reports and Proposals, General Electric Company, Cincinnati, Ohio

Amy Brewster, Technical Writer/Editor, Belcan Corporation, Cincinnati, Ohio

L.P. "Luigi" Espenlaub, Technical Writer, Reynolds and Reynolds, Cincinnati, Ohio

Anne C. Hamilton, Writer/Editor, World Service, Cincinnati, Ohio

Ralph E. Hoehan, Data Manager, Technical Service, Cincinnati Electronics Corporation, Cincinnati, Ohio

Thomas R. Milligan, Manager, Technical Writing Department, O'Neil and Associates, Inc., Dayton, Ohio

Terri Parker, Technical Writer, Cincom Systems, Inc., Cincinnati, Ohio

Jim Quinlivan, Technical Writer, NuTone Division of Scovill, Cincinnati, Ohio

The Workshop Planning Phase

During the discussion of arrangements with prospective panel members, three participants stated their belief that the technical writing occupation is impossible to analyze because of the nature of the occupation. First, different companies produce unique products that significantly influence the kind of technical writing required. In addition, size of the company also determines a vast range of job responsibilities for a technical writer. Ironically, the smaller the company, the more tasks and responsibilities are required of the technical writer. Finally, the background and training of technical writers are so extremely varied that a consensus on tasks would be impossible because of a basic philosophical dichotomy. Namely, is a technical writer turned technician or a technician turned writer? The infamous chicken/egg controversy typifies the dilemma when writing for a technical world.

DACUM Workshop

The Technical Writer/Editor Workshop ran for thirteen hours over two days, on May 19 and 20, 1983. During the two days the panel identified 13 general areas of competency with 130 individual tasks. Initially 20 general areas of competency and over 200 tasks were developed through the intense brainstorming sessions. Revision, which the process naturally evokes, condensed the job description. The general areas of competence are listed in the following table.

Table 2. General Areas of Competence

Entry Level Skills	a. Demonstrate Technical Expertise or Aptitude
	b. Demonstrate Proficiency in Composition
A. Plan the Project	G. Conduct Project Review
B. Coordinate the Project	H. Produce the Document
C. Research the Project	I. Perform Administrative Function
D. Organize the Information	J. Continue Professional Growth
E. Write the Project Copy	K. Train and Supervise Employees
F. Plan the Illustrations	

Occupation Defined

The panel decided upon the term "Technical Writer/Editor" to capture the scope of the occupation. The experts looked at numerous labels (such as technical communicator) but reached consensus on writer/editor. This phase occupied over an hour of discussion while panel members shared information about their occupation, companies, and specific departmental situations. Some viewed themselves as translators for an audience, others as editors of technical drafts, and another as a provider of support service to an engineering department. The panel agreed that they all produced documents and materials which were instructional or informational in nature. Their overriding consensus focused on the commitment of the occupation to serve a specific audience. They concluded that "the technical writer/editor produces documents and materials to instruct or inform specific audiences."

Entry Level Skills

The panel members ran into a conflict among themselves when they began listing the skills required to produce the project copy. Several members believed that this area should identify only those skills associated with the process of physically producing the project copy (i.e. selecting and using various tools and equipment to the submission of the draft). Others, however, felt that this section should include the communication skills necessary to actually write the copy. The panel debated this issue for about 45 minutes before it concluded that communication skills were a prerequisite for the other skills in this area and that anyone seeking employment as a technical writer would have to demonstrate proficiency in composition before he or she could be hired. The panel then decided that if the completed DACUM chart was to give an accurate picture of the skills a competent technical writer needs, it should include entry level skills. At this point, one panel member identified about 25 separate points that he thought related to composition. The other panel members, however, recognized that such a number would be unwieldly on the finished chart and condensed the number to 7 by placing a number of the skills in the tasks "using sentences and paragraphs effectively" and "striving for unity, coherence and emphasis."

With this issue resolved, the panel then concluded that a person entering their profession would also have to show expertise in a technical area. They agreed that this area of competence was significant because technical writers must frequently communicate with engineers and technicians to gather data or familiarize themselves with a concept, product, or process they will be writing about after their research is completed.

Managing the Project

The technical writer/editor solves problems as a project manager. Thirteen performance standards describe the planning sequence of the technical writing project.

Plan the Project

One significant insight was clarified by the panel. The technical writer does not determine the purpose of the project as a separate task. Interestingly, the technical writer/editor defines the audience, not the purpose because purpose *is* audience. The experts are so intensely audience-committed that purpose becomes a subset in many tasks. Teachers of technical writing stress purpose as a separate entity in the writing process. But the panel of experts do not perceive their profession as making that didactic distinction. Their entire "purpose" is to satisfy the audience's needs.

Coordinate and Research the Project

This general area of competence requires a technical writer/editor to interact with numerous groups and individuals. Communication is achieved not only through the finished written product but even more by interaction with different people. The technical writer/editor interacts with many different people in different settings such as meetings and interviews. The broader definition of communication skills is truly descriptive of a technical writer/editor's role. The job description of the technical writer/editor dispels the stereotype of the solitary writer quietly composing the draft. The technical writer/editor must work with production staff, photographers, illustrators, artists, printers, engineers, technicians, management, and most importantly with the client/audience. This dynamic communication process eventually results in a product called the final draft, but what a complex system!

Product Development

The technical writer/editor also undertakes the writing process. General areas of competence include "organizing the information," "writing the project copy," "planning the illustrations," and "producing the document."

Organize the Information

The only time purpose entered into the discussion of the job description was as a method to help organize information. Outlining the draft was stressed, but the focus was again on the larger scale. Since outlines are not developed in isolation, the technical writer/editor must interact with many people before a draft is developed. Even during the writing process, feedback to and from designers helps edit and reorganize the format.

Write the Project Copy

The importance of the audience of the technical writer/editor was emphasized even during the tasks of writing the project copy. Standardized terms, acronyms, vocabulary, and illustrations were evaluated for readability in this state. External controls shaped the draft because the panel stressed the role of compliance with standards and specifications from numerous sources. The effects of the draft had to be analyzed from these different points of view which ranged from immediate supervisors to the federal government.

Plan the Illustrations

The distinctive nature of technical writing is highlighted by the twelve stages that the technical writer/editor completes to plan the illustrations. The panel sequenced the twelve tasks to develop illustrations that are essential for this type of writing. The panel did not focus on the kinds of figures but how they assess the draft for appropriate illustrations. Although their tasks determine requirements, kind, color, and style of illustrations, the interaction with artists and technical sources actually evaluates and approves the final illustration. In certain companies, the technical writer/editor may even have to draw the illustrations.

Produce the Document

Nowhere are detailed, special skills more evident than in the production of the document. The panel clearly assessed the fifteen competencies that the technical writer/editor performs in this general area. Obviously, the "editor" dominates during this stage as proofreading, camera-ready copy, and the photographic skills are demonstrated. The required skills range from "paginate the text" to "solve production problems." Keen powers of observation and expertise in both printing and photography are needed for production of the document.

Conduct Product Review

The evaluation of all the former areas, including the draft, is conducted in the project review. Perhaps this general area tests the competencies of the technical writer/editor more than any other. The project review demands synthesis of all composition and people skills for the technical writer/editor. Communication skills are weaved into group dynamics during this phase. These eleven competencies could be flowcharted to heighten the role of revision, corrections, and changes. The panel kept repeating the concept of the "loop." A technical writer/editor keeps the review cycle operating until final approval is achieved. These tasks are so critical that the table lists them.

Table 3. Tasks to Conduct Project Review

1. Conduct meetings	7. Correct the copy
2. Listen to comments	8. Verify for accuracy and adequacy
3. Advocate your position	9. Prove the quality of the material
4. Resolve conflicts	10. Resubmit for review
5. Incorporate comments	11. Continue review cycle
6. Evaluate the impact of changes	until final approval
	LOOP

Implications for Instruction

The college teacher of technical writing must realize the distinction between training technicians to write technically and educating students to be technical writers. Ideally the results of this DACUM process should be useful to re-think and design the technical writing courses in higher education. Instructors should strive to educate students in technical and engineering programs to communicate with technical writers/editors, not to become them. A separate curriculum must be planned for the education of technical writers/editors.

Technical Writing Courses

Direct implications for instruction of technical writing courses center on the broader definition of communication skills. Perhaps courses that teach only types of writing, such as descriptions of mechanisms or unsolicited proposals, must be expanded to include formal presentations, discussion techniques, and organizational development. Technicians and engineers need to communicate with the technical writer/editor so that the final document bridges the gap between their thinking and the audience's needs. The technical writer/editor is the facilitator of this process.

Technical Writer/Editor Curriculum

The DACUM chart, which identifies 130 competencies of the technical writer/editor occupation, should form the basis for a competency based curriculum. The program would assume and test entry level skills of applicants for both technical expertise, and proficiency in composition. The curriculum might have to be offered during the last part of a degree program or after its successful completion. But the timing is not as important as methods. The technical writer/editor curriculum must address the development of competencies in project management and product development. Three appropriate instructional methodologies would be the case study, role-play/simulation, and internship.

The Case Study Method

A case is a narrative fiction that will force students to think and behave as a technical writer/editor in order to solve various communication problems presented within it. An effectively designed case will mirror the conditions students will encounter in the real world of the technical writer/editor, contain all the information necessary to produce the final written document(s), and stress the concept of problem solving as related to the broader definition of communication. Also, it will have to incorporate many of the competencies and skills recognized in the DACUM chart, such as planning and coordinating projects, researching and organizing information, and writing the project copy. Cases will also allow the student to assume the part of the central character in the narrative who will interact with others, identify audiences, and develop the communication in terms of that particular audience's needs. For those instructors who write their own cases, the DACUM chart can serve as a guide for including the specific tasks relative to the profession and for understanding the overall process a technical writer/editor must successfully complete to produce a document.

Role-Play/Simulation

Since the technical writer/editor is a project manager who interacts with many sources of information, structured experiences that assimilate real world working conditions could be constructed. Simulation of the environment would stress the essential human interactions and delicate problem centering and solving processes. People and task orientations could be synthesized to create a climate to develop competencies as a technical writer/editor. In-basket exercises could provide a practicum in a college classroom that could attempt to measure the competencies of the technical writer/editor.

Role playing could give valuable insight and feedback to the student technical writer/editors because they could act out company and client roles as well as their occupational choice. To see the occupation from another person's point of view offers an invaluable perception into the limitations of the tasks of the technical writer/editor. The students will appreciate the responsibilities of the printers, photographers, designers, and artists if they could role play accurately and authentically these occupations which support and assist the technical writer/editor in the daily performance of his or her job.

Internships

Probably the greatest method for developing competencies is the internship. As a matter of fact, the case study, role playing and simulation could prepare the student for the clinical internship. Cooperative education could provide the

TECHNICAL WRITER/EDITOR: The technical writer/editor produces documents and materials to instruct or inform specific audiences

a Demonstrate Technical Expertise or Aptitude							
b Demonstrate Proficiency in Composition	b1 Apply rules of correct grammar	b2 Use words correctly	b3 Use sentences & paragraphs effectively	b4 Spell words correctly	b5 Consider style and tone	b6 Strive for brevity and clarity	b7 Strive for unity, coherence, and emphasis

A Plan the Project	A1 Recognize requirements	A2 Define the need	A3 Define the audience	A4 Select the topic	A5 Rank the topics	A6 Define the scope	A7 Determine the time frame	A8 Consider the budget	A9 Apply standards	A10 Review existing literature	A11 Consider resources	A12 Consider your own knowledge and expertise	A13 Select and consider others' ideas
B Coordinate the Project	B1 Schedule editorial and support services	B2 Monitor and report progress	B3 Maintain project history	B4 Plan and conduct meetings	B5 Resolve conflicts	B6 Choose vendors	B7 Receive and log source data					
C Research the Project	C1 Gather the data	C2 Interview sources	C3 Read and interpret engineering drawings and documents	C4 Study relevant literature	C5 Acquire hands on experience	C6 Observe or work through the process	C7 Use and evaluate models	C8 Simulate audience's situation	C9 Evaluate the resources	C10 Select and use tools and equipment (e.g. camera, all recorders)		
D Organize the Information	D1 Clarify the purpose of the project	D2 Analyze the information	D3 Select the information	D4 Review and interpret others' rough drafts	D5 Articulate the concepts	D6 Group information into working units	D7 Establish value and order of the information	D8 Draw conclusions	D9 Prepare the outline	D10 Submit outline for review	D11 Revise the outline	D12 Assess need for further research	D13 Provide feedback to/for designers
E Write Project Copy	E1 Select and use tools and equipment (e.g. word processor)	E2 Develop the format	E3 Define and standardize terminology (e.g. acronyms)	E4 Comply with standards and specs	E5 Match the voice to/with audience	E6 Resolve questions	E7 Write the first draft	E8 Make notes for illustrations	E9 Edit the draft	E10 Evaluate the text	E11 Revise the text	E12 Revise the draft	E13 Submit the draft for approval
F Plan the Illustrations	F1 Specify requirements for illustrations	F2 Determine the kind of illustration (e.g. photo, line, table, chart)	F3 Determine the style of illustration (e.g. color, size)	F4 Search for existing illustrations	F5 Prepare sketches	F6 Write figures, titles and callouts	F7 Prepare tables and charts	F8 Provide source data to artists	F9 Review the illustration with the artist	F10 Review text to confirm call-outs	F11 Revise the text to match figures	F12 Approve the illustration	F13 Obtain the rights to use
G Conduct Project Review	G1 Conduct meetings	G2 Listen to comments	G3 Advocate your position	G4 Resolve conflicts	G5 Incorporate comments	G6 Evaluate the impact of changes	G7 Correct the copy	G8 Verify for accuracy and adequacy	G9 Proof quality of the material	G10 Request final review	G11 Coordinate review cycle with other agencies		
H Produce the Document	H1 Specify typography	H2 Prepare dummy copy	H3 Paginate the text	H4 Produce camera ready copy	H5 Make photostat of art or a PMT (or ex. draft	H6 Crop and size illustration	H7 Strip and opaque negatives	H8 Proofread at each stage	H9 Secure final approval	H10 Prepare a print or a dummy or an proper copy	H11 Send camera ready copy to printer	H12 Secure and inspect negatives	H13 Inspect printers work (e.g. press run, press proof or first copy)
	H14 Solve problems	H15 Coordinate the Distribution Process											

I Perform Administrative Functions	I1 Follow company policies and procedures	I2 Prepare time reports	I3 Complete expense reports	I4 Maintain and write status reports	I5 Estimate time and costs	I6 Prepare bids	I7 Prepare and track budgets	I8 Justify capital expenditures	I9 Requisition funds	I10 Review the contracts	I11 Participate in departmental planning	I12 Plan personnel requirements	I13 Set up meetings
	I14 Serve on committees	I15 Participate in the interviewing process	I16 Maintain and review existing literature	I17 Order supplies								
J Continue Professional Growth	J1 Develop future commitments	J2 Participate in professional societies	J3 Read professional journals	J4 Participate in workshop courses and seminars	J5 Learn about related professions	J6 Keep current with your technical specialty	J7 Keep current with communication techniques and technology	J8 Read company's literature	J9 Take internal training and courses	J10 Maintain process and work habits		
K Train and Supervise Employees	K1 Prepare a training package	K2 Orient new employees	K3 Conduct training sessions	K4 Encourage & participate in professional growth	K5 Assure compliance with company standards	K6 Assign projects	K7 Review on-going projects	K8 Assume responsibility for own employees' work	K9 Participate in performance appraisal process	K10 Recommend salary actions	K11 Maintain a current master job description manual	

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structure for a vital and relevant educational experience in the technical writer/editor profession. Actual "hands-on experience" with direct supervision from a practicing professional could begin the internship. Gradually, the student technical writer/editor could be indirectly supervised while being given more responsibilities for project management and product development. The panel stated that many of their departments were understaffed and overworked, especially at deadline. Perhaps the internship problem could assist them while it taught the student.

Summary

The Technical Writer/Editor DACUM Workshop identified 130 different tasks that analyze the occupation in a job desription format. The DACUM chart could generate a competency-based curriculum for the formal education of people who want to become technical writers/editors. The two basic concerns of the occupation center upon project management and project development. The technical writer/editor interacts with many sources and audiences to create informational/instructional documents. This dynamic occupation requires as entry levels both proficiency in composition and technical expertise, or at least aptitude. Three instructional methods in a separate curriculum to educate technical writer/editors are implied by the chart. The case study, role play/simulation, and internship provide ideal situations with minimum constraints to prepare students for the world of work as a technical writer/editor.

You may obtain a copy of the DACUM chart for the Technical Writer/Editor by contacting the authors directly.

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Third Place:
What Works Best in Developmental Education

Mary Lou Conlin
(Spring 1983)

In 1983, Cuyahoga Community College celebrates the twentieth anniversary of its founding. From the day in September 1963—when the College opened its doors in an old abandoned school building to 2,945 students—to the present—when it serves over 28,000 students at three modern campuses—the College has provided remedial or developmental instruction. We have steadily tried to improve that instruction and have been fortunate in having an administration that has provided both financial and philosophical support for most of those efforts.

During our twenty years, we have learned a great deal about what works well or not-so-well in developmental education. And, although it is a massive over-simplification to reduce a developmental education program to a few principles, our most successful effort to date has been characterized by having the following qualities:

—clearly stated and equitably enforced student attendance and grading policies
—proactive retention and attendance practices
—clearly stated specific instructional objectives and evaluation criteria

—multiple grading of student assignments
—individualized educational plans based on a cognitively ordered sequence of the specific instructional objectives
—small group and one: one instruction

But what are the criteria by which we judge the success of our developmental education efforts? Of primary importance is the number or percent of students who are successful in the regular courses for which they register *following* their developmental experience. The purpose of developmental work is to provide students with the skills they need to succeed in their regular college-level courses. On this score, using one of our developmental writing courses as the example, 75 percent of the students who proceeded from the course to Freshman Composition completed that course with a grade of "C" or better.

Another measure of success is the percent of developmental students who continue working in the course to the end of the quarter. On this measure we scored 77 percent.

An additional measure is the percent of students who achieve the objectives of the course. When students were permitted to extend their learning time into a second quarter, under an incomplete or in-progress grade, the percent of achievers reached over 82 percent.

We also look at retention between quarters (69-79 percent), retention to graduation (69 percent), and other factors. And, although we are neither satisfied nor complacent about these results, we can say we have been more successful than most colleges with similar student populations. For instance, a recent article (Wyatt and Clowes, *Report from Research and Evaluation Committee: Characteristics of the "New Student" in Higher Education*) cites that 13% of the high risk students not only squeeze by in open-door admissions schools but actually make B+ or better averages at selective institutions.

Except for two aspects of this developmental education effort, any college can do as we did. All teachers can provide their students with a clearly stated attendance and grading policy. In any college, however, all teachers of a particular course should follow, and enforce equitably, the *same* policy. And, although some teachers may say this infringes on academic freedom, those of us in any given institution can treat students equitably only if we set equal standards and expectations for them.

It takes time to carry out proactive retention and attendance practices. When our investigations showed that as many as 15 percent of the students who registered for one of the developmental communications courses never reported for classes, we distributed information at registration about the importance of attending the first class and the attendance policy (i.e., that students who missed more than three meetings would be dropped). This was followed by telephone calls and letters to students who had not reported by the second class meeting, again notifying them of the attendance policy. The first quarter, our drop rate was high, but over three quarters it declined to about 15 percent of the original enrollment, which included students who withdrew or stopped coming because they were not doing well in the course.

Teachers may find it somewhat more difficult to define the specific instructional objectives of a developmental course and the criteria by which achievement of the objectives will be measured. Again, the objectives and evaluation criteria should be consistent among all teachers of the course. Agreement assures that students are treated equitably and that teachers of following courses know the competencies their students have achieved.

Even with agreement on objectives and evaluation criteria, students' papers should be evaluated by more than one person—each one applying the agreed-

upon evaluation criteria as precisely and objectively as possible. Multiple grading assures the objectivity of the evaluations and appears correlated with the success rate of students who go on to freshman composition. Of the students who were approved for freshman composition of the basis of multiple grading of their work, 75 percent succeeded in the course; of those who were approved on the basis of a single teacher's grading, only 66 percent succeeded.

The final two characteristics of the course may be the most difficult to achieve, but they are essential to the student's success in the course and lasting intellectual development.

True developmental education requires developing the student's ability to reason and to apply such reasoning to, for example, writing. This requires analyzing, first, the cognitive demands of the objectives of the course and then, second, sequencing the objectives so that the student progresses from tasks requiring only knowledge to those requiring application of that knowledge and, finally, to its synthesis. It is one thing to know the rule that a verb must agree with its subject, but quite another to apply that rule in writing. Also, the ability to classify is a fundamental reasoning skill, but applying that ability in the content and development of an essay requires higher level reasoning. We can develop such higher level reasoning only by having objectives that require it and a carefully ordered sequence of objectives that lead to its acheivement.

Students progress at different rates, for a variety of reasons. We recently had the honor of having Dr. Benjamin Bloom at the College for a seminar on mastery learning. He noted that 1:1 instruction was the most successful learning method and shared graphs to support that statement, When we provide 1:1 tutoring, coupled with some small group work, we achieved the greatest student success and retention rates. We also achieved an average of only six hours of tutoring time for students to achieve the objectives of a course that was highly demanding. Obviously, tutoring can be costly if it is provided in addition to a full-time faculty member with a normal student load. To be cost effective as well as instructionally effective, a teacher must be willing to accept a larger student load; to delegate some responsibility to the tutor; and to forego, perhaps entirely, their favorite but questionably effective mode of instruction—the lecture. Such changes in the teacher's role are the most difficult to achieve of the several developmental education principles that have worked best for us. We speak often of our students' differences in preparation and ability and in rate and style of learning. One teacher cannot do justice to 100 or more such different students, but given a well-trained group of tutors as helpers, the teacher can sometimes work wonders. For such student success, perhaps we should be not only be willing but eager to change our traditional ways of organizing and delivering instruction to our students.

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Interdisciplinary Social Sciences: A Pillar of General Education

Lloyd Monnin
(Winter 1980)

This title may to many seem rather revolutionary. Many may see it as based on a number of assumptions, if not presumptions. To many, it may seem to involve sufficient generalizations to qualify as a slogan, and slogans, by nature,

are to promote change or movement, not light paths. Allow me to clarify — and try to shed some light.

All are aware that the social sciences, now less than two centuries old, include "any of the several related sciences that objectively study and analyze the significant aspects of human social behavior." They would essentially include sociology, political science, economics, cultural anthropology, social geography, population studies and social psychology. Many social scientists would include physical archeology. These areas of education that deal with the social contexts of learning and the relation of the school to the social order are commonly included as well. History is frequently considered a social science as well as one of the humanities since its techniques and distinctive insights prevade both areas.

All are aware that the social sciences received their real impetus and disciplinary identity in the aftermath of the two great revolutions, the political/democratic and industrial. In the last quarter century the term "Behavioral Sciences," has come into vogue to designate all or a select group of the social sciences. The term "social studies," on the other hand, refers more to formal education and the teacher-learning processes and, as such, refers to a part of a school or college curriculum concerned with social relationships and the functioning of society. They usually include courses in history, government, sociology, geography and other similar courses.

But as Cardinal Newman was completing his masterpiece on liberal education in 1852, *The Idea of a University*, the political and economic base — and consequently the social base — on which this education seemed to depend, was being eroded. The political revolutions of France and America which were to trigger others were all signs of the demands for an increased democratization of power. The Industrial Revolution, which began in England, initiated processes which were to provide more freedom from work in societies where everyone worked. View, if you will, these changes as they are compounded and aggravated by the new American philosophy of pragmatism which required even the liberal arts to demonstrate their value by immediate usefulness.

Thus, the influence of the philosophy of Pragmatism, the persistent effects of the Protestant work ethic, the influence of the German Universities, the wealth of American natural resources coupled wilth capitalistic competiveness brought about several changes in college education. More and more went to college, the traditional liberal arts programs became problem-oriented, many new programs having a vocational slant and goal were initiated, and finally, the system of course electives was introduced. This latter system evolved to the point where, by the end of President Charles Eliot's long tenure at Harvard (1869-1909), a student could literally take any course or courses he chose under the elective system.

Thus, we might say the erosion of the liberal arts was complete. All courses were of equal value; there was no superior learning. The Renaissance man became an oddity of the past. Students packaged programs consisting of their own preferences; professors built security for themselves by greater and greater specialization in their research and the esoteric courses they designed. The pendulum had swung to its farthest point — away from the liberal arts — and in opposition to the argument most logically alledged by the late Robert Hutchins.

It should be noted at this point that the social scientists involved in disciplines concentrating primarily on research and investigation are no more inclined to be interdisciplinary or cross-disciplinary in approach than are social science/social studies instructors. Specialization and the piece-work mentality has not been limited to the industrial world; the great cadre of researchers involved in the many facets of social investigation as well as their academic counter parts, all experience circumstances which prompt them into progressively narrower fields of research and teaching. Most persons tend to study (do their research) as well

as instruct in a manner like unto that in which they were taught. It is easier to narrow the area of specialization than to broaden it. It is somewhat of a truism today that we personally "know more and more about less and less." This increased specialization exacerbates both the problems of communication among researchers and integration of learning by students.

But what does all of this have to do with General Education? And, you might ask, what do you mean by General Education? And how does General Education differ from its progenitor, the Liberal Arts? Allow me to review briefly the history of these two. The liberal arts had their origin with the Greeks and the beginnings of formal education. Slave labor made possible a condition of leisure for the elite. This elite engaged in the pursuit of learning. It is no accident that the Greek word for leisure, oxoha, became the Western word for school (ecole, escuela and Schule). The trivium and quadrivium provided for centuries the core of education for the liberated (those freed from the burdens of labor) and those preparing for the professions of the ministry, medicine, law and politics. He argued most consistently that if the liberal arts is the education appropriate to free citizens, then in the light of the success of the 18th-century political revolutions which have made all citizens free, everyone should have a liberal education.

It was at this point that the pendulum haltingly hesitated in preparation for a reverse of direction. There were many concerned about the absence of any common learnings among college offerings. President Lowell, Eliot's successor at Harvard, initiated a distribution system, later to become prevelant in most American colleges, which required lower division students to choose courses in each of the major areas of learning: the humanities, social sciences and natural sciences. References to common learnings became more and more frequent; students were required to earn majors and minors. By 1918, for instance, in Columbia College's undergraduate curriculum 1/3 of the program was prescribed, by 1938, 1/2 was prescribed.

It was not until the early 1930's that the term "general education" came into vogue. Many were unsure what general education involved. Certainly, it involved common learnings and hopefully a *means* of reinstating and reforming liberal education. We are all acquainted with the programs at Harvard, Columbia, University of Chicago, St. Johns and numerous other institutions. Where the liberal arts programs had a base of "rationalism," general education was devoted, in the words of Harold Taylor, to an orientation of "instrumentalism." General Education is more concerned with the learner and the learning processes than with content; it places emphasis upon behavior and social usefulness as well as intellectual development. It is a manifestation of the democratic spirit in higher education.

Several factors gave rise to the necessity of reforming General Education even before its original shape had crystalized.

1. The knowledge explosion, which not only made the Renaissance Man an impossibility -- gave the academic world added reason for multiplying courses. Note, I did not say disciplines.
2. Work itself has undergone a transformation. Since the scientific revolution and all of the technological advances it made possible, many new jobs and types of work have surfaced and they along with earlier forms of work have taken on a theoretical base such as to require formal training and preparation and to give them, and those who practice them, a new status of intellectual respectability.
3. We have witnessed the origin and rapid increase in the number of Jr. Colleges, Community Colleges and two-year Technical Colleges — in that order.
4. We should note also the increased emphasis upon vocational and technical training at both the high school and junior college level coupled with the advent and popularization of the Associate degeree, especially that of Applied Science and Applied Business.

These factors, and others, have necessitated changes and a reformation of General Education, particularly as it is to be included in two-year vo-tech based institutions and programs. Some of these changes which must be made in General Education are the following:

1. General education must seek to cultivate the abililty to use knowledge — and in true boot-strap fashion, almost before it is acquired.
2. General Education must become a unifying element in our culture — keeping in mind that a society's approach to work, as well as its knowledge, is basic to its culture.
3. Since constraints of time frequently do not allow for requiring a core of courses in the social sciences, natural sciences, and humanities, it becomes desirable, even necessary, to look to the development and offering of sound interdisciplinary courses in each of these areas, — and there is my pitch!
4. General Education can only be achieved by individuals, and must make sense for them. No one integrates learnings for us.
5. General Education must be general in two senses:
   a. in that it links the individual with his fellows in some shared knowledge and values, and,
   b. in that it serves him well in a number of different life situations.
6. General Education should develop the capacity to go on learning and adapting oneself to change without casting aside one's convictions. This capacity is a more important ingredient of general education than any particular content one may have learned.
7. Our General Education, like its revered ancestor, the liberal arts, should not seek to prepare one to do some specific thing, with the hope, however, that he will be more able to do anything well.

And finally allow me to add some reasons why it is advantageous to utilize an interdisciplinary approach to the social sciences — and the humanities and natural sciences as well:

1. Time does not permit exposure to each of the separate disciplines — these latter are the creations of academicians for purposes of research and the propagation of the fruits of that research through teaching.
2. Many social science researchers are today promoting interdisciplinary or cross-disciplinary research programs — one becomes a check upon the other. Note the new cross-breed programs: social psychology, psycho-linguistics, socio-biology and others.
3. In two-year institutions we are not introducing students to nor faced with selling them on becoming discipline majors.
4. Since most of those teaching social science courses as part of general education programs in two-year institutions, or at the lower division of four-year colleges, have a reasonable background in several of the social sciences, there are sound reasons to believe they would be more effective in their teaching to the extent to which they involve themselves in relating and integrating their own learnings from these separate disciplines. They will with greater probability help students integrate their learnings if they do not present them as disparate parts or entities.
5. Finally, in the judgment of many today, and particularly, when we are concerned with the general education of the non-specialists or the general education aspect of even the content specialist, there are good reasons to believe that approaches, which look to the modes of human experience,

and the nature of the human mind, might be more productive than those focusing on disciplinary content. In short we should be looking to the nature of the learner and the processes of learning more than specific historical patterns of arranging that which is to be learned.

For these and other reasons, I believe that the interdisciplinary and cross-disciplinary approaches, which commonly utilize team-teaching techniques constitute a sound base or pillar for the teaching of general education.

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(Paper presented at the annual conference of the Community College Social Science Association, November 2, 1979, Louisville, Kentucky by Lloyd N. Monnin)

PLUS ONE

Continuing Education and the American Workforce— Report of the National Advisory Council on Continuing Education

"Postsecondary continuing education should be linked to the training and retraining of America's workforce to improve the Nation's economy, productivity, and ability to compete in a global economy," reports the National Advisory Council on Continuing Education. The following article is reprinted with permission from the AMERICAN EDUCATIONAL JOURNAL, *April 4, 1984.*

The national Advisory Council on Continuing education reports that over twenty-three million adults participate in continuing education annually. Their reasons for participation are diverse, but the greatest common denominator shared by these individuals is the link that continuing education provides to their job, their career ambitions, or the enrichment of their lives.

While these twenty-three million Americans represent the core of an emerging learning society, many others may be excluded from learning experiences for reasons of cost, time, or for personal reasons.

In the past decade, the number of adults continuing their education has increased dramatically. Today, nearly thirteen percent of *all* adults participate in part-time instruction, and the numbers have been increasing at the rate of over one million adults annually.

The majority of these learners is employed; many others are seeking employment. The work-oriented ambitions of these individuals complement the existing strong link between postsecondary continuing education and the workplace and between learning resources and the needs of an expanding economy.

These developments are encouraging. There are, however, several issues which are of concern to the Council and which the Council seeks to address in this report:

— The role and commitment of postsecondary institutions to worker education and training and the adoption of policies and allocation of resources specifically designed to serve adults;
— The involvement of employers in campus-based education and training programs of adults seeking entry level jobs, skill improvement, and career advancement;

— Increased collaboration by educators and employers in determining the needs of the labor market and the preparation of workers to fill those needs; and
— The articulation of more precise national policies for human resources development and the application of those policies in ways that will enchance the Nation's economic development, by improving industrial and worker productivity and strengthening the Nation's ability to compete internationally in a global market.

As a strictly educational phenomenon, continuing education has often been misunderstood and misinterpreted. As a key element in matters of broader and national importance, however, continuing education is incresingly perceived as a necessary adjunct to sound capital investment and the creation and commercialization of new technologies as a way to improve America's effectiveness in a global economy.

In the past year, the National Advisory Council on Continuing Education has listened to testimony from scores of organizations and individuals throughout the country on issues affecting the retraining of the American workforce—the theme of its deliberations during the year. This testimony validated the inclination of the Council to believe that much is happening at state and local levels in collaborative efforts among employers, educators, and employee representatives, often with the support of state governments.

It is the sense of the Council, however, that one important element is missing. In its delibertations, the Council has repeatedly examined, for purposes of clarification, what the federal role ought to be in the evolution of a learning society and the relationship that ought to exist between the learning aspirations of adults and their corollary interest in job searches, career advancement, and professional security.

The determination of a federal role—and any federal policies that may result—can best be achieved through a careful review of the role and responsibilities of others. State and local governments, private enterprise, labor unions, community agencies like libraries and museums and, of course, educational institutions are directly involved in educational services to adults and in specific responses to work-oriented needs. It is the parameters of their activities that help outline the complementary dimensions of federal responsibilities.

Questions of policy and the clarification of federal responsibilityes in the area of adult learning lie at the core of the Council's function. The President, the Congress and the Secretary of Education on federal policies relating to the education and training of adults at the postsecondary level of instruction.

This responsibility is broad. There is considerable legislation already in existence that addresses these issues, and during the past year both the Administration and Congress have supported greater efforts to relate job training to the needs of the unemployed and the underemployed, most specifically through the Job Training Partnership Act. This legislation, like others, depends ultimately on the cooperation of state and local governments for its success.

Federal student assistance programs, federal participation in state-based unemployment insurance programs, support for Employment Service offices throughout the country, and other programs provide a base for support. However, the Council believes that the solution also depends on the degree to which employers, educators, and employee representatives are more directly involved in these efforts.

Education and training policies for workers are affected by the evolution of national policies for employment. In testimony before Congress, the President's National Commission for Employment Policy noted the size, diversity, and decentralized nature of American government and the American education system, and observed:

> . . . But this is not to say that a uniquely American employment policy cannot be developed to address the needs of the American people. . . We have the components for developing a workable policy, but federal decisions in education, trade, economic development, job training, defense, revenue collection, and other areas are largely uncoordinated and occasionally work at cross purposes. More attention must be paid in the development of federal policies to their effect on employment.

Employment aspirations are at the heart of continuing education, and continuing education is at the core of any determined strategy by the federal government, working with others, to influence the shape of a national human resource development policy.

A new learning community

It is the Council's view that educational institutions, especially at the postsecondary level, should not only be closely involved in the development of these national policies but should be asked to reconsider their own policies to help achieve these national objectives.

Universities, colleges, technical institutions, and two-year junior and community colleges collectively are the largest providers of learning service to adults. The quality of the education and training they provide directly affects the quality of the workforce available for employment. If industry is to be revitalized to spur the Nation's economy, then the American education system, at all levels, must also be revitalized

More and more training will be required as job needs change, become different, become more sophisticated. For this reason, collaboration between employers in private industry—which is where eighty percent of the Nation's jobs are—and educators, should not only expand but flourish.

Should this collaboration increase, and should education and training for adults and for workers become a more central concern of institutions and of national policy, the Council then envisions the emergence in society of a new kind of learning community, one that reinforces the primacy of our Nation's education system and which gives to it a revitalized purpose, a reinvigorated sense of direction, and a vitality from which all Americans can draw strength.

Adult learners challenge many traditional values in higher education. Adults learn differently and learn different things than young men and women in traditional degree programs. Adults alter fundamentally the relationship between teacher and student and bring to the classroom a maturity and an experience that young people cannot.

Most importantly, adults on the campus are a reminder of the millions of adults who learn off the campus, in their homes, their workplaces, and in their communities. These distance learners help clarify for educators the importance of applying technological innovations to education services for new types of learners, and of increasing the cooperation between them and private sector enterprises, the source of most of these innovations.

In the end, continuing education for adults may help bring to the education establishment itself some fresh thinking about what education is all about and how and why education plays such an important role in the development of a democratic society.

Findings

Postsecondary institutions are no less affected by certain trends in society than other social entities. Demography, technology, and the economy are changing in ways that may be unique to our generation. Their imprint on individuals will be deep and lasting. It will be felt greatest at the two places Americans spend most of their life-times—in the classroom and the workplace. How the classroom and the workplace respond to these changes will determine how the Nation's citizens fare for the remainder of the century.

Demography is important. An aging population has obvious implications for an older student population and for a more mature and stable workforce. Science and technology will force us to train and retrain many more people to master what one observer has called the technical "blitzing" of society. Changes in the economy are closing down old industries, displacing old workers, making obsolete old skills; but also creating new opportunities and a vast potential for growth for the reskilled, the newly skilled, and the unskilled.

Demography: the median age of Americans today now exceeds thirty years. With a reduced national birth rate, and a slow but steady decline in the number of youth between sixteen and twenty-four years, the nation's median age is likely to climb. Behavior in the workplace has already started to change. One hundred million Americans are now employed—a record number. Sixty percent of them are between the ages of twenty-five and fifty-four, and that age bracket will increase to seventy percent by 1990. Yet, according to the Bureau of Labor Statistics, an additional fifteen to twenty million new workers will have to be absorbed by 1990.

At the same time, disruption in the American economy is displacing many workers in the labor force, some permanently, other cyclically. The department of Labor reports that in 1982, twenty-two percent of the American labor force experienced periods of unemployment. Despite many hopeful signs of economic improvement, occasional periods of unemployment can be expected.

The chronically unemployed will be severely affected. Disproportionately high levels of unemployment may continue for Blacks and Hispanics, especially among those with little or no skills. Hispanic migration across the border will remain a matter of national and federal concern. Dislocated workers, separated from employment because of industrial advancements, plant closures or relocation, and outdated skills, will remain a critical problem.

Women in the workforce have also reached record numbers. Since World War II, they have accounted for about sixty percent of the net growth of the labor force. Their growth rate will continue, but at a slower pace. A phenomenal statistic that has ramifications for society far beyond the workplace and the classroom is that fifty percent of all married women, many with dependent children and working husbands, are in the workforce.

These trends are changing American higher education. In 1980, the average age of students on campus was over thirty years—a stark contrast to the traditional view that post-adolescent youth between the ages of eighteen and twenty-two are the primary clientele of postsecondary education.

Several years ago, the American Council on Education labeled these maturing students the "new majority in postsecondary education." This influx of older students occurred at a time when the American birth rate was declining, society was absorbing the results of the post-war baby boom, and the American workforce itself was reaching record levels of educational achievement.

The United States now has the most highly educated workforce in its history. The average American worker has received 12.7 years of education, up significantly from the 10.9 years of two decades ago.

The growth of continuing education is directly related to these developments. The longitudinal studies conducted by the National Center for Education Statistics in its triennial survey conclude repeatedly that the higher the level of education an individual has received, the more likely it becomes for the individual to seek more education.

Of the twenty-three million Americans who participate in continuing education, more than forty-four percent have had at least one year of college, as compared to only twenty-nine percent of the general adult population. Nearly one-third of the entire adult population with more than five years of college, for instance, participates in continuing education. (Only 2.2 percent of the total population with less than an eighth grade education participates.)

The most intense levels of participation occur among those in the 25-54 age bracket, which is where the bulk of the American workforce is and on whom the success of American productivity may depend.

Why these levels of participation? The vast majority of adult learners cite job and career objectives as their primary purpose in seeking more education and training. Two out of three of these participants are employed, seventy percent of them in white collar jobs described as professional and technical.

These objectives influence and change American education. Nearly fifty-four percent of all adult learning courses are in two and four-year institutions and in vocational and trade schools. The remaining courses are provided by business and industry, labor groups, community agencies, government, and in other non-school settings.

These selected demographic figures are only an indication of the magnitude of changes occuring in society, but from them the Council draws one firm conclusion: *Whether Americans are at work or whether Americans are in the classroom, the gap between American higher education and the workplace is narrowing.* The spillage of one into the other suggests to the Council—as it has to other observers—that collaboration between educators and employers on meeting the education and training needs of the American work force must intensify. Dialogue and joint planning must happen if the Nation is to respond to the challenges of new technologies, new information, and to public insistence on a resurgence of the American economy.

Technology: Contrary to many expectations, the growth of high technology alone will not bring about a revitalization of the American economy nor resolve the nation's nagging problems with serious unemployment. The Bureau of Labor Statistics projects that high-tech development will account for only seven percent of new job opportunities between 1980 and 1990.

Technological advancement, however, will have a dramatic effect on millions of jobs and workers in excess of the seven percent of new jobs created. Separate estimates conclude that fully fifty-five percent of all workers in the immediate future will require a competent grasp of information technologies.

These technologies have an unprecidented ability to replace and supercede themselves, requiring at each new level of development an even more sophisticated comprehension of their behavior. More trained people is one answer to capturing the potential of these technologies to improve American productivity. Another answer may lie in the training and retraining of workers at lower levels of sophistication.

A solid grounding in mathmetics and science will be critical. Workers must take steps to attain greater technical competencies in order to secure their place in the work force. Ironically, employer demands for improved technical and mathematic skills come at a time when this Council and many others have heard employers express concern about basic ineptitude among current and potential employees in verbal and writing skills, in computational ability, and in analytic skills that enable them to cope and adapt to changing job requirements.

According to *A Nation At Risk*, the report of the National Commission on Excellence in Education, one out of five American workers is functionally illiterate. Their grasp of basic skills is poor. Problems of illiteracy, of poor performance, of severe shortcomings in technical competence, are particularly acute among entry-level workers.

Many entry-level workers are high school graduates. Because of this, employers legitimately criticize the quality of "educated" workers they are receiving. In challenging the education system that is producing such individuals, they may also wonder about the value of working closer with the education system itself to retrain the American workforce.

The Education Commission of the States, in a report prepared for the National Governors' Conference, states that one-half of all high school graduates in the United States take no mathematics beyond the tenth grade. Student enrollments in undergraduate colleges increased seven percent in recent years, but enrollments in remedial mathematics increased by seventy-two percent.

Scholastic Aptitude Test scores dropped since the early sixties, declining from 503 in mathematics in 1963 to 466 in 1980. Across the country, colleges and universities have decreased, not increased, admissions requirements for science and mathematics. High school seniors bound for college teacher education programs score forty-eight points below the national average in math, thirty-five points below in verbal skills.

Statistics do not augur well for the teaching of these subjects in school. Forty-five states report a critical shortage of mathematics teachers; forty-two states report a similar shortage for physics teachers. Forty-one percent of elementary school teachers have no undergraduate training in science. Twenty-six percent of all math positions are filled by uncertified teachers. Among newly-employed secondary math and science teachers, fifty percent are uncertified to teach their subjects.

The Council is well aware that its special interest is on postsecondary education and not elementary and secondary education. It is aware, too, that the Council's primary concern is the quality of education and training available to adults, not youths.

We would be remiss, however, in not drawing some conclusions about the implications for continuing education of the apparent weaknesses in the primary and secondary levels of instruction. Worker retraining is essential to the Nation. Employers in private industry must have confidence in the abililty of the American education system at all levels, and especially at the postsecondary level if, as the council hopes, they will intensify their efforts to collaborate with educators to help place at their disposal a better educated, better trained, and competent American worker.

This is a worthy goal, but we should not lose sight of a fundamental perspective of quality education. The Council cites the conclusion of the Stanford Institute for Research on Educational Finance and Governance report, "The Educational Implications of High Technology":

> . . . .The general educational requirements for creating good citizens and productive workers are not likely to be altered significantly by high technology. Everyone should acquire strong analytic, expressive, communicative, and computational skills as well as extensive knowledge of political, economic, social, and cultural institutions. These aptitudes and knowledge are required for understanding daily experience and of ensuring access to social opportunities. To the degree that the present schools fall short of providing these results, *they should be sought for their own sake rather than because of the claim that they are required for a high technology future.*

The economy: The nation's economy is improving; it is on the mend. The strength of America's private sector shows all the signs of a major upswing in

industrial activity and an eagerness to recapture American leadership and competitiveness in world markets.

Although our economic future looks bright, the benefits of accelerated technical innovation, production and marketing may not be felt immediately by many unemployed and underemployed who need new and better jobs, and many employed who face the risk of rapid obsolescence.

America's new industries, computers, aerospace, telecommunications, and energy are thriving, but they, too, are increasingly challenged by other national economies. The American share of these new industries in the world market has also declined in recent years from twenty-five percent to twenty percent.

American productivity is not at maximum levels; factories are operating at seventy-five percent of capacity. What America does produce must compete in a global market where other Nations can out produce us and can put on the market products of superior quality, and at lower cost.

Recently, the Business-Higher Education Forum, in its report to the President, *America's Competitive Challenge*, stated that America's ability to compete effective in the world economy depends ultimately on three factors:

—Capital investment,
—Technical innovations and new information, and
—Human resource development and worker skills.

America has capital to invest wisely, and possesses the high technology that can lead to higher productivity. What concerns the Council most deeply is that the United States lacks a consensus about national strategies to use the Nation's human resources in ways that will draw maximum benefits from the Nation's physical and technological resources.

Continuing education and training is not the only solution to problems of unemployment and underemployment, but it is the Council's judgement that no effective solutions can emerge without a more consistent rationale and plan of action for the better use and training of the country's human resources.

This is a shared responsibility of all segments of society, of federal, state and local governments, of employers, of labor representatives, of educators, of citizens. The Nation needs a sustained dialogue about education and training for the American worker, and it needs a forum from which can flow to our citizens an enlightened understanding of what is happening to our economy and how important it is to prepare American labor for the challenges ahead.

Recommendations

The National Advisory Council on Continuing Education is required by law to report to the President, the Congress, and the Secretary of Education on the status of federal policies for continuing education and training for adults at the postsecondary level of instruction. Because of our understanding of what is happening in society through demographic, technological, and economical conditions, the Council has focused its interest this year on issues affecting the retraining of the American workforce.

Federal resources are limited. They should be used with more precision. Federal responsibilities are limited. They should be determined in consort with the responsibilities of others.

The Council submits the following recommendations based on these two assumptions, but with the realization that certain actions are most appropriate for federal consideration.

1. Dislocated workers: The Congressional Budget Office reports that as many as 2.1 million workers, or twenty percent of the unemployed, may be permanently dislocated from their jobs during 1983 as a result of structural changes in the economy—even as the economy improves.

Title III of the Job Training Partnership Act provides limited federal funds

for federal-state-local joint efforts to identify these workers and to retrain them for employment. Educators and employers are directly involved in this progaram.

The collaborative efforts sought by the Job Training Partnership Act put into practice one of the basic assumptions of the Council regarding effective continuing education and training for workers: that it is best done at state and local levels, where training resources and jobs are most readily available; and that a proper role for the federal government is to encourage and supplement these activities, as appropriate, to enhance grassroots resolutions to national problems.

The Council commends the objectives of this Administration-backed effort and recommends to Congress that the President's request for increased funding in FY 1984 for Title III of the Job Training Partnership Act be approved.

To supplement the objectives of this legislation and to further collaborative federal-state efforts to help unemployed and dislocated workers, the Council also recommends that legislation be approved to give states more flexibility to use part of state unemployment insurance tax revenues to pay for training, job search, and relocation for unemployed workers eligible for unemployment compensation under state law.

Data and information: Effective planning of education and training programs requires current, accurate data about the supply and demand for workers and the changing nature of occupational requirements, particularly at the local level.

The federal government has the responsibililty for collecting a wide range of economic and labor force data, at the national level, to provide a basis for the development of national policies. However, in the area of education and training, these data become particularly meaningful when they can be applied at the local, operating level.

The Council calls upon federal agencies to exam their data collection, analysis and dissemination activities to determine how these programs can best be reoriented to supplement existing data on the labor market available in states and localities.

3. Research and Development: The Council views the basic research and development capacity of institutions as crucial to the preparation and deployment of a competent, well-educated and trained workforce.

One-half of the basic research conducted in the United States is sponsored by the Nation's colleges and universities. There is ample evidence to suggest that institutional facilities and laboratories for research and development are often outdated, underfunded, and fallen into disrepair.

State-of-the-art equipment, laboratories, and related hard and software resources are critical to American research and development activities. The quality of academic curricula and training depends upon them and they are crucial to helping institutions develop new delivery systems that can use and serve emerging technologies and industries.

If postsecondary institutions expected to train and retrain workers to master these technologies and fill the jobs created by these expanding industries, their curricula and training programs must have access to and support from private sector enterprises.

The Council recommends that the Administration and Congress explore further the options provided by the U.S. Tax Code as an instrument to encourage the private sector to commit more of its money, manpower, and technical resources to institution-based R&D activities.

The federal government has a record of various efforts to provide incentives to the private sector to collaborate more closely with postsecondary institutions on matters of mutual concern. It would be wise to assess the effectiveness of

that record—its past successes and failures—while in the process of exploring any new federal effort.

4. The U. S. Department of Education: The Secretary of Education has moved ahead to draw national attention to the need to reform American education. His office is the key policy-making office on education matters for the federal government; through it, the federal government can convey to the American people what it perceives are educational issues of national importance.

The Council believes that it is appropriate for the Department to assume a leading role in developing policy directions for retraining the Nation's workforce. The educational reform that is sought may depend, in part, on the potential of postsecondary institutions to serve the Nation for this retraining purpose.

To further that end, the Department of Education should have the capacity for:

a) Leadership in relating college-sponsored continuing education to the needs of the Nation's workforce;

b) Policy analysis and program development in consultation with other agencies, especially the Department of Labor and the Department of Commerce;

c) Support of exemplary projects, based on local initiatives, which can clarify, develop and enlarge the postsecondary contribution to worker training and retraining; and,

d) research and dissemination activities which can expand understanding of the relevance of college-sponsored continuing education to workforce needs and provide information about effective programs.

The Council believes that the Department has a special opportunity to act as a catalyst and as a source of leadership within the federal government on broad, multi-agency policy initiatives for human resource development.

American attitudes toward work, education and training: Americans and their families are confronted by unprecedented demographic, technological and economic changes. Many do not understand what is happening. The loss of a job and salary is a catastrophic event to any wage earner, and any prolonged threat to that job and to the jobs of others has grave consequences for the stability of the American workforce.

Specific actions to improve the economic climate and to provide additional education and training opportunities to workers by federal, state and local governments, by employers and union, by academic, community and other agencies are needed. These actions may not be enough, however, if workers themselves are essentially ill-informed about the changes sweeping over them.

Persistent—even dramatic—initiatives are needed to alert workers and the American public generally to the implications of these historic changes and to enlighten them about the renewed importance of further education and training, if workers are to hold on to jobs and to compete for new jobs.

The federal government has unparalleled resources and capacity for leadership in this area. It is the recommendation of the Council that the Administration and the Congress exercise this leadership now and that the President marshal the resources of federal agencies to alert, inform and help prepare workers for the likelihood of more changes to come.

National Advisory Council on Continuing Education
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FORUM

ISSUE: SHOULD HIGHER EDUCATION BE INVOLVED IN PROGRAMS FOR CHILDREN?

Recently attention has been focused on college involvement in programs for children. Diverse opinions have been given nationally as to the feasibility of whether the already financially overburdened institutions of higher education should expend funds on such programs. In his article, Andrew McGreevy, Ohio University-Lancaster, presents that institution's positive philosophy of its "Kids In College" program. Edward Geiger, Muskingum Area Technical College, provides questions and answers raised about this issue in his article, "Coins, Kids, and Casualties."

SHOULD A COLLEGE HAVE CHILDREN'S PROGRAMS?

Andrew M. McGreevy

The answer to the question of children's programs depends upon the philosophy of a particular college. We at Ohio University-Lancaster are very positive about our "Kids In College" program because we operate with a philosophy of maximizing community involvement with our campus. The children's program shows the public that we have the resources and commitment to create and maintain a program needed by a very special element of our community.

Our children's programs runs during the summer for one month and is intended for students who are entering the fourth grade or have completed the seventh grade by the month of June — this eliminates debates about age requirements. We offer a wide variety of subjects including computer science, mathematics, geology, foreign languages, painting, creative writing, ceramics, typing, fencing, archery, and basketball. We emphasize that our full-time faculty teach in this program; however, we also hire adjunct teachers for the summer.

It is obvious that the children benefit from the program. Coming into a college campus is a new, and sometimes intimidating experience for a child. But, when they finish our program, the children know that they have done something unique, something different from just "going to school." The college benefits from a successful children's program in that the community is very much aware that the local campus has taken the time and effort to provide something beyond the ordinary. This improves our position in the community, leads to goodwill, and is sometimes cited by community leaders when describing the quality of life our area to possible newcomers.

The concept of children's programs on campus is no longer a new idea. We know that such programs exist in many states. Also, some colleges and universities will admit children into credit classes and let the youths compete for grades with other students. The record seems to show that exceptional children are quite capable of achieving high grades.

Why be opposed to children's programs? Given a good faculty and the proper environment, children's programs benefit all involved with the effort. The idea of children on campus may be disturbing to some educators, but once

we get past the barrier of the age of these students, there is no reason why educational resources should not be used in the exciting and rewarding area of children's programs.

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COINS, KIDS AND CASUALTIES

Edward F. Geiger

There is a quiet controversy brewing on college and university campuses — whether or not to program for children as a part of our continuing education offerings. There are those who argue for this direction, but let us keep two things in mind:

> New endeavors do not always bring positive results (even those born out of good intentions).
>
> Our energies should be focused on the missions and goals of higher education — particularly on adult needs.

Some argue that there's money to be made from kiddie programs; however, we need to consider the long-term cost of this short-term profit. We in Ohio have received constant messages from the legislators concerning subsidy support for non-credit programming. Offerings of wine-tasting, belly dancing, and cake decorating are the most common reasons cited for the lack of subsidy. Our political leaders believe that career and professional non-credit instruction should predominate. Will the kiddie programs in their increasing numbers convince legislators that higher education is at it again in a field where someone else should be (perhaps the local elementary or secondary schools)? How long will it be before we are reminded of the mission of higher education and how teaching children is in the realm of our local school boards or YMCA/YWCA'S? What short-term profit could we reap that could equal the subsidies we get for professional non-credit offerings?

Others argue that kiddie programs are a good way to bring the parents and/or relatives of the children to our campus. But what will they say? Will they share how exciting the engineering lab is? Will they tell other adults how competent our business faculty are? Probably not. It is likely that the only information they share will be the quality of our kiddie program. The issue here is what images our institutions wish to project to the community. If we were created to offer programs for adults, then that alone is the image we should foster.

There is also the argument that we will be attracting future students. Could we not gain the same benefit by taking better care of the adults already on campus? Consider for a moment the adult student enrolled part-time. That student made a decision around his or her graduation from high school to do something other than go to college — perhaps raise a family. The average age of part-time students is between 30 and 35; thus their children are most likely 12 to 17 years old. If we in higher education focused more time helping these adult learners, would we not have a greater opportunity to educate their children? Parents will have much more influence on their children when the parents are participants in the higher education institution themselves.

Focusing on the adult learner has a two-fold thrust. If we concentrate attention on the adult learner to make his or her enrollment more satisfying and successful, we will have more part-time students enrolled and we will also be developing future students to enroll full-time. The second and perhaps more immediate concern involves the time the continuing education department spends developing and managing the kiddie programs. When we are confident we have met all the needs of the adult learner, only then should we focus attention to children's programs.

Is it the role of higher education to provide a broad spectrum of services or to focus on those which are most appropriate? If the colleges and universities wish to be involved in the education of the children of our communities, then assisting our local public schools to develop these programs seems the wise thing to do. The programs would be housed in institutions more able to cope with the problems of this young age group. The higher education institution would also benefit from the closer link with the public school and our colleges would be focused on our real mission — educating adults.

If our institutions are committed to teaching children on our campus, then we should focus upon the family rather than the child. We should promote family programs, since the family is a common concern of the adult. These programs should not be designed as some classes for kids and some classes for adults. The classes might be developed to have the parent (or grandparent) learning in the same class as the child. Imagine a computer camp where the child and mom learn together what the home computer can do, or athletic programs where dad and son compete together, or a dance class where the entire family is involved. With these kinds of options, the college or university can be seen as a family community center where families come to learn and play.

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PRACTICUM

Cuyahoga Community College's Partnership with the Cleveland Business Community

C. Russell Cooper

The challenge facing Northeastern Ohio is clear: to ensure that business, industry, government and the workforce of Cuyahoga County remain competitive as new technology changes the way we live and work.

To meet this challenge, we must do more than invest in technologies, facilities and equipment. We must invest more time in finding new ways to educate and train people to high skill levels. Japan has more than proved this point with heavy investment in their one major natural resource — people. In fact, Japan has set an overall yearly training average of 50 hours per employee — that's one hour a week during which each employee learns new technological advancements. These efforts have enabled Japan to improve productivity level at a rapid rate and to become a world leader and deliverer of high quality products.

Our country has an abundance of resources we can use to compete in the

global economy. We have not concentrated the same amount of effort on human resources the Japanese have, and have lost more than 20 different industries to Japan. There are a few proven examples in this country that investment in human resources does make a difference. Leading companies like IBM, General Motors, 3M, General Electric and Standard Oil Company of Ohio have demonstrated that training as an investment undoubtedly spurs growth and profits. We're pleased to see that locally Sohio has taken the initiative to set a yearly training goal of 100 hours per employee for its automechanics program.

Realizing the impact of competition and the importance of human resource development in Greater Cleveland, Cuyahoga Community College is currently constructing a 96,000 square foot high technology training center. The Unified Technologies Center (UTC) will be a "state-of-the-art" facility in every respect that enables the College to work directly with employers to train and retrain Clevelanders for jobs with high growth potential.

Business and industry will contract with the center to develop short-term programs based on training needs. Technician-level training will be offered in areas such as instrumentation, robotics/automation, laser optics, computerized numerical control, information processing, computer assisted design, computer assisted manufacturing and computer maintenance.

As the state-funded Unified Technologies Center accelerates its training efforts, CCC looks forward to strengthening communication ties with all segments of the Cleveland economy, for the strength of this program lies in working directly with business and industry.

As part of the overall effort to increase employee skill levels, UTC will develop the following services:

First, the Center will use the latest advanced learning technology available such as video disc, micro computer-assisted self-instruction and specific career assessment methods.

Second, the Center will use strategic planning to anticipate future needs of business and will constantly upgrade the use of new training.

Third, UTC personnel will work with business and industry to discover training needs. Center directors will be well-informed to respond in a timely matter.

Fourth, UTC programs will be tested to insure clients of the highest quality of training delivery.

Fifth, UTC will develop skill assessment programs structured to various levels of need. Career planning and counseling concepts will be most effectively used.

Finally, UTC personnel will share with clients the results of current market research surveys of business community training needs and suggest new ideas for raising employee skill levels.

For the UTC to function effectively, we suggest that Cleveland area companies give serious thought to the following avenues for developing human resources:

To raise the skill level of all employees through regular investments in education and training.

To stimulate employees to train for new technologies and to measure and reward attainment.

To record employee skill levels continuously and to provide each employee with career paths that will enhance chances for success.

To work closely with UTC leadership to determine specific employee training needs.

To plan ahead so that employees can successfully work with new equipment and processes.

To respond to new initiatives for training and to the planning and implementing of new training ideas by providing CCC and other research institutions with a better than 30 percent response to upcoming direct mail surveys that assess company training needs.

A working relationship has been established with the State of Ohio and its $4.1 million Thomas Alva Edison Partnership grant for the establishment of the Cleveland Advanced Manufacturing Center (CAMP). The Center, an idea carried forward by Cleveland Tomorrow, brings together Case Western Reserve University, Cleveland State University and Cuyahoga Community College with local industry to do research and training on advanced manufacturing methods.

Together, we can utilize our human resources to their maximum potential and strenghten the Cleveland community's ability to become responsive to the technology of the '80s and competitive in the global economy.

C. Russell Cooper
Executive Director
Cuyahoga Community College Technology Center
Cleveland, OH 44115

REACTION

The JOURNAL *encourages letters and articles in response to its contents, policies and OATYC activities.*

Merit Pay

Barbara P. Thompson

Anne R. Peterson and Jack Tabor addressed the issue of merit pay in the Spring 1984 "Forum: Should Merit Pay be Used to Reward Outstanding Teachers in Two-Year Colleges?" An examination of merit pay usually involves consideration of related topics such as master teachers, career ladders and additional administrative duties. But as Dorothy Wickenden simply defines it in "Merit Pay Won't Work," " . . . [it] is nothing more than a money reward for exceptional teaching." Lawrence Uzzell clarifies further in "New Merit Pay Plans: Where Is the 'Merit'?" that " . . . teachers get paid more for doing better work — not more work or different work." Clearly, then, it is the instructor's teaching ability, and nothing else, which should be assessed. And therein lies the core of the problem.

Although Peterson makes a good argument for recognizing outstanding instructors, an appraisal system to determine "some form of the reward" has one glaring weakness — the system of evaluation used to select those worthy of accolade. Peterson suggests that such evaluation would occur through the combined efforts of "supervisors, peers, students, and self-review." At least three of these groups of evaluators pose problems.

Supervisory rating tends to be highly subjective. Those opposed to merit pay and other incentive plans argue that most supervisors are not working from a carefully defined and *written* set of criteria. Robert S. Soar, et al., address this issue in "Teacher Evaluation: A Critique of Currently Used Methods":

> . . . the typical rater observes what is going on in a classroom, notes student and teacher behaviors that seem relevant, combines these impressions into a composite picture that seems to make

> sense, and then compares this composite to his or her personal standard of effective teaching. Notice that all of these activities take place in the rater's head; there is no record of performance. Only the final rating is publicly available — a rating that reflects the discrepancy between the rater's composite image of a particular teacher's effectiveness (however arrived at) and his or her personal standard of effective teaching . . . Quite literally, this is evaluation without measurement.

Another problem at this level of appraisal is the question of who will rate the instructor. Obviously, we have two choices here: those inside the institution and those outside. But Marge Scherer warns in "Merit Pay: The Great Debate" that those inside the institution may be playing "politics" or showing favoritism, while those evaluators outside the institution may not be familiar with the school's situation, mission, purpose — call it what you will — ignorance of which is certainly going to affect instructor ratings. Effective teaching methods for one school may not be effective for another.

Peer review poses another set of problems. The competition created by such incentives would make for tense working conditions, as affirmed by Gary Sykes in "Incentive-Based Restructuring for the Teaching Profession": " . . . extraneous factors such as favoritism or political control enter, producing resentment among those who must work together daily." Is it likely that two candidates who are "neck and neck" for such an award will be able to critique each other objectively should the occasion arise to do so?

Finally, student appraisal is far from objective. As a rule, students tend to rate instructors on personality first and teaching quality second. Even with a carefully worded evaluation form, it is not unlikely that the response to the question, "What are the instructor's strengths?" Will elicit such replies as "enthusiastic, good sense of humor, likeable" rather than an evaluation of the instructor's teaching methods.

Peterson suggests that one of the main benefits of an appraisal system is that "standards would be defined." Is this not putting the cart before the horse? Do we institute an appraisal system in order to develop standards? Should we not have *existing* standards before we set an appraisal system in motion?

Two positive points emerge from Peterson's argument. An appraisal system is definitely advantageous if it "highlight[s] areas where they [instructors] need improvement and further work." Second, those instructors so rewarded can "serve as models to others within the system," which can be a tremendous asset to new teachers.

Tabor's argument against merit pay is basically sound and certainly reflects the prevailing attitude of opponents of the issue. However, it is not quite accurate to say that "neither merit system — performance pay nor the career ladder — seems to work." Granted, we have only isolated examples, but it *does* work in some school systems — provided the money is there and administrators are willing to spend it. Jerome Cramer, in his article "Merit Pay Systems Can Work," cites the successful efforts in Dalton, Georgia, and Ladue, Missouri. Sykes notes that the master teacher plan has worked in the Charlotte-Mecklenburg district, and that some school districts in Houston, Los Angeles, and Miami currently offer an extra stipend to instructors who will work in inner-city schools.

Let us examine the issue from one more perspective. *Who* are the teachers who will be the recipients of merit pay? Undoubtedly, although no distinction is made in the literature dealing with the subject, I suspect the only candidates eligible for this reward in the two-year college will be full-time instructors who, among other benefits, have vacation time, sick pay, and medical and dental coverage. Why not use merit pay to attract and retain quality part-timers?

The part-timer is certainly the "revolving-door" employee of the two-year institution. Two-year colleges cannot expect to retain the best of them without incentives, for they will simply look elsewhere. Many of them are holding down a second, and sometimes third job in order to make ends meet. They generally receive little feedback from superiors, peers and students simply because their work schedules don't permit them to remain in the school environment for any appreciable length of time other than to conduct class. They reap few benefits. Yet part-timers comprise 50 to 60 percent of the teacher population at most two-year colleges. As Tabor puts it, "For a long time, many schools have paid a few people more so that they could pay many people less." Many of them are excellent teachers who deserve to be recognized and rewarded for the work they do.

In addition, many part-timers would like to become full-time instructors. One way that we can determine qualified applicants from the rank of part-time instructors to fill positions vacated by full-time instructors would be on the basis of merit. In this case, merit pay would not be creating competition — the competition is already there.

The crucial issue here is whether a valid and fair evaluation system can be established. Under these conditions, it is possible for merit pay to work. Also, the colleges must be willing to spend the money. Sykes indicates that salary incentives in the 10% range have little effect, and he suggests experimenting with larger amounts and observing the results.

Realistically, merit pay does not address the problem of upgrading the teacher profession. We must look beyond the red herring of merit pay and examine other issues. As Vicki Lytle criticizes in "The Making of a Bogus Issue: Merit Pay":

> The current preoccupation with merit pay is obscuring more significant areas of education reform that need to be addressed if the quality of teaching and learning is really to be improved — everything from teacher preparation and in-service training to class size and the availability of materials and supplies.

Sykes suggest that we can attract good teachers to the profession with scholarships, grants, and loan programs, among other incentives. And Wickenden sums it up by asserting, "In the end schools will certainly need more than merit pay, and probably more than 'career ladders,' if they mean to increase the attractiveness of the teaching profession and raise the calibre of its members."

Administrators, the ball is in your court.

Barbara P. Thompson
Part-Time Instructor
Columbus Technical Institute
Columbus, Ohio 43215

INFORMATION FOR PROSPECTIVE CONTRIBUTORS

The *Journal* encourages submission of material for any of its sections by faculty, staff, administrators and/or trustees of any of Ohio's community, general and technical, junior, regional and technical campuses. The *Journal* is particularly receptive to articles of general profession importance in the areas of administration, instruction, and baccalaureate or technical studies for two-year institutions.

There are forty-four solicitors of editorial material listed here. Contact your campus solicitor or one nearest you to inquire about submitting a specific manuscript.

Manuscripts must be typed double-spaced and of approximately 1,000-3,000 words in length. All submissions must be accompanied by a stamped self-addressed envelope for return. Art work must be black and white. Photos glossy; tables and drawings on 8½ by 11 paper. The name and address of the contributor should be on the back of all art copy.

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Submission deadline for the next *Journal* is February 1, 1984.

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1984-85
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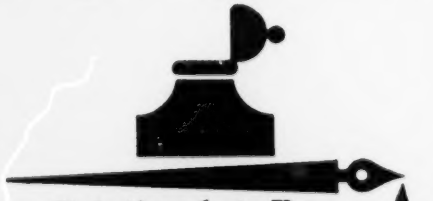

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November 8 -9

The Program
Thursday, November 8

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Visits and hands on Computer Labs, CAM Lab, Video Studio, Dental Hygiene Lab, Career and Counseling Center, Theater, and other areas of interest.

5:00 p.m. — **Reception**—Student Center 10

6:00 p.m. — **Dinner**—Student Center 10

Topic: Prospects and Opportunities for the Two-Year College: A National Perspective
Dr. Nolen M. Ellison, President, Cuyahoga Community College
Dr. Allison Bernstein, The Ford Foundation
After-dinner entertainment

Friday, November 9

8:15 a.m. — **Continental Breakfast**—Student Center 10
8:30 a.m. — **OATYC Business Meeting**
9:00 a.m.-noon — **Seminar Sessions**
12:15 p.m. — **Luncheon**—Student Center 10

Topic: Prospects and Opportunities for the Two-Year College: The View from Columbus

2:00 p.m. — **Panel: Strategic Issues**

Warren Goff, Chief Instructional Officer,
North Central Technical College
Bill Miller, Vice President, Columbus Technical Institute
Norman Grant, President, Faculty Senate Network

3:30 p.m. — **Adjournment**

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Please make all checks payable to OATYC. Mail conference registration and fees to **Dr. Rae Rohfeld, Cuyahoga Community College, Division of Continuing Education, 4250 Richmond Road, Cleveland, Ohio 44122. Phone (216) 292-2268.**

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JOURNAL

OHIO ASSOCIATION OF TWO-YEAR COLLEGES

VOL. X NO. 2 SPRING 1985

THIS ISSUE

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- Collective influence on the future direction of Ohio's two-year campus system;
- Access to low-cost classroom liability insurance protection of $300,000;
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- A newsletter which informs members of the proceedings and activities of the OATYC and of Ohio's two-year campuses;
- The *Journal* which provides an opportunity for publication and exchange of scholarly views and concepts;
- Conference and workshops providing opportunities for professional development, visits to other two-year campuses, presentation of papers, and socialization with other two-year campus personnel.

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- To provide a forum in which all state-assisted, two-year campuses can meet to discuss and resolve mutual problems;
- To foster cooperation and communication among Ohio's institutions of higher education;
- To provide the viewpoint of the state-assisted, two-year campuses to the Ohio Board of Regents and to the State Legislature;
- To identify and improve the status, prestige, and welfare of all state-assisted, two-year campuses in Ohio, and to other activities which will increase the contribution of state-assisted two-year campuses to Ohio's total educational process.

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VOL. X No. 2 Spring 1985

The *Journal of The Ohio Association of Two-Year Colleges* is published by the Association to provide the two-year colleges of Ohio with a medium for the sharing of concepts, methods and findings relevant to the two-year college classroom and to provide an open forum for problem discussion and review.

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COMMENT

Rae Rohfeld

Among the wave of reports on education issued in the last year or so, there are several dealing with the education of adults. We have discovered the need for lifelong education, due particularly to the changing economic base. At the same time our enrollments show the number of traditional college-aged students is declining. The fact that a large proportion of those adults who pursue education do so outside the traditional educational institutions suggests the need to re-examine our activities. While the Report of the Commission on Higher Education and the Adult Learner gives two-year institutions better marks than four-year ones, we have a way to go before adults view themselves as our true clients rather than as "non-traditional" students.

As adults become a major segment of our "regular students," we will continue to be challenged to serve them appropriately. Are we able to apply what we know about adult learning within our institutions? It seems that we are still in a consciousness-raising phase, slowly becoming aware of changes necessary to meet adult needs. For example:

1. Adults engage in education for specific purposes. Are we able to relate the theoretical knowledge which is our strength to the students' purposes? (Do we even try to identify the purposes of individual students?)
2. Adults have learned much from experience, and they have experiences which can serve them as sources for further learning. Can we design learning environments which enable students to see the value of their experience? Can we develop environments in which the students' knowledge is recognized as a resource for others?
3. "College Student" is only one of many roles for adults. Adults are not immersed in a college-selecting environment, as many high school students are. Is the information we provide adequate and clear for those who do not have counselors, college guides, or even a college catalogue readily available and whose decision on where to go and what to take may rest on who gives the clearest information?
4. Adults often attend college for career-related purposes. Do we provide adequate counseling which encourages their personal and career growth to the fullest? Do we have adequate information about the world of work to do this?
5. Adults tend to enter and leave educational programs as they meet new phases in their development. Can we find ways to be comfortable with this coming and going, to keep in touch with people even when they're not active students, and to avoid viewing such "stopping out" as a retention problem?

These, and other issues, will concern us as long as we view adults as a significant campus constituency. Perhaps before we can adequately serve them, we need to consider a more fundamental question: How does it change us if we think of our students as adults?

Rae Rohfeld
President, OATYC

TEXT

FOCUS: Marion Technical College, Increasing Productive Capacity

Jan Petras

Each issue the Journal *visits a two-year college campus in Ohio. This edition focuses on the Marion Technical College, which shares a campus with the Ohio State University in Marion. The College has worked to supply the specific skills and knowledge demanded by the job market.*

A newcomer to Marion, Ohio commented not so long ago that it seems there is no part of the local community that isn't touched in some way by Marion Technical College.

And it is true that many of this community's 60,000 residents have been affected by the two-year college, either by taking a course or completing a degree program, by employing a graduate of the college, by serving on an advisory committee, by attending a public service program, or even by teaching a class part time.

Now in its fourteenth year of operation, Marion Technical College has consistently strived to respond to the community's need for technical education that led to the creation of the college in 1970.

Classes at MTC began in October 1971 with 187 students enrolled in four technical programs. Today, Marion Technical College has an enrollment of nearly 1,400 students in 23 associate degree and certificate programs in business, information, health and engineering technologies.

MTC president Dr. J. Richard Bryson firmly believes the college has come of age in an era when technological advances demanded that employees be more specifically educated and prepared for their jobs.

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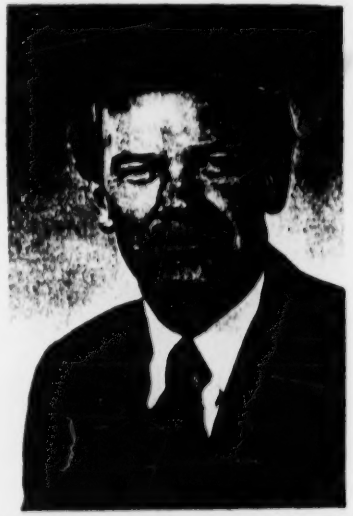
"As the job market demands specific skills and knowledge through the influence of technology and science, we have worked to respond to those demands by providing education that grants opportunities for career entry, job advancement, and ultimately increasing productive capacity," Dr. Bryson commented.



As a result, MTC administrators have taken a hard look at community employment and educational needs, and have developed or are currently planning programs in response to those needs.

These programs range from expansion of the continuing education program and implementation of a local OTTO (Ohio Technology Transfer Organization) office, to offering on-site classes and services, and conducting faculty and staff tours and information exchanges at various local businesses.

Jay McCreary, director of MTC's continuing education program and coordinator of the OTTO program, explained that both programs are offered by the college as a way to assist local businesses as well as residents in general.

"Education is an ongoing process," McCreary said. "It never stops with the attainment of a specific educational degree nor at the end of a formally structured program. Today, people should constantly upgrade, improve, and retrain themselves through educational experiences. At MTC we call it 'learning for profit.'"

Through the continuing education program, MTC offers a variety of non-credit courses in occupational areas and develops and administers specialized courses and customized training programs.

These programs have included one-day seminars such as "Executive Training for Women" and "How to Use Electronic Spreadsheets" to full-blown classes on technical writing, word processing and blueprint reading. Also, classes are offered on-site at various businesses in the community as part of apprenticeship programs.

The OTTO program is another step toward keeping local businesses and industries viable and growing using MTC resources. Funded and coordinated by the Department of Development, OTTO has 30 technology transfer coordinators located at the 25 two-year community and technical colleges throughout the state.

"OTTO works at the grass roots level to impart current or newly derived knowledge to local small businesses and industries. It also provides technical assistance to those companies that don't have the capacity or access of their own to obtain technical data," McCreary said.

For the community at large, the college is working to become more accessible. By offering classes in a local shopping mall, at the public library, and even on television, MTC is reaching out to the people it seeks to serve.

Quality — of academic programs, instruction and facilities — is one of the attributes the college faculty and staff are most proud of.

Completed in 1976, MTC's technical education center houses classrooms and laboratories where students receive hands-on training using some of the most sophisticated engineering, word processing, medical and computer equipment available.

The Ohio Board of Regents recently granted the college $162,500 to purchase even more equipment for the technical programs. A large share of these funds went toward IBM and Apple personal computers which will be used in all of the academic programs — from business and engineering to office administration and health technologies.

But quality of instruction extends beyond laboratories and equipment into the faculty where concern for students is paramount. It is this quality that former MTC alumni discuss frequently when asked about their alma mater.

Carol Witzel, who graduated in 1980 with an associate degree in accounting, says, "One of the greatest attributes of MTC is the teaching staff. They all care about each student. When I needed extra help, I received it. I feel I got the finest education I was able to obtain."

Roberta Bell, a 1976 graduate of the associate degree nursing program and now a registered nurse at Norfolk General Hospital in Norfolk, Virginia, commented, "Through the years I've worked with many graduates of other associate degree schools and the teaching staff at MTC is far superior. At the time I was attending college I complained that MTC instructors were too strict and too hard! Now I find after being out and working full-time in several different hospitals that I got a good basic education that was equal to or superior to others.'"

Quality of instruction and efforts to meet the needs of the local community have paid off in terms of enrollment, college officials believe. Despite the current economy which has caused a slight enrollment decline over previous years, about 1,400 students are now enrolled in associate degree and certificate programs.

And, like other technical colleges in Ohio, MTC attracts students of all ages and all walks of life who attend for a variety of reasons.

"When I entered Marion Technical College, I barely remembered what an 'exponent' was," commented Reid Wickiser, a 1984 graduate of the electronics program who works as a systems analyst at RCA Corp. in Carey. "I now have the basic skills required for a technical position, an associate degree, and the foundation necessary to enable me to pursue a more advanced degree. I've gone from being nearly unemployed to having a choice of good employers and positions with a future."

Jane Click, a 1983 business management technology graduate, added, "Marion Technical College changed my life and career. It took me about four years to complete my education. Securing my degree after being laid off from the Marion Dresser personnel department, I decided nothing would stop me then. It paid off. Now I'm managing a 53 room motel complex in Mansfield and am very grateful for the staff at MTC which was very encouraging."

Perhaps the comments of James Smith best sum up the attitude of MTC's more than 1,500 alumni. Smith, a 1976 business management technology graduate and currently operations manager at Ingersoll Rand in Charlotte, North Carolina, says, "Having attended two colleges since graduating from Marion Technical College and receiving a bachelor's degree, I feel somewhat qualified to compare the quality of instruction I received at each institution. Without question, MTC compared most favorably. I attribute whatever success I have achieved, in part, to the dedicated staff and quality of instruction I received at Marion Technical College."

The future for Marion Technical College looks bright. This spring, ground will be broken for a student services/activities building on the campus it shares with a branch of OSU. This new facility will enable the college to expand its services toward more socialization of its student body as well as to offer a facility where community activities and events can be held.

"Our sights are always set toward meeting community needs," Dr. Bryson commented. "We feel that we have a history of doing just that, as well as a future that enable us to be even more responsive."

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Reaching for Excellence: Ohio Has What It Takes!

Elaine Hairston

After Friday's luncheon at the Fall 1984 OATYC Conference, Dr. Elaine Hairston, Vice Chancellor for Academic and Special Programs, Ohio Board of Regents, spoke on "Prospects and Opportunities for the Two-Year College: The View from Columbus." Dr. Hairston recalled the question posed by Governor Celeste when he spoke at the 1983 Fall Conference, that being "Can you do it any better?" In response to this question, Dr. Hairston discussed ways by which two-year colleges can achieve excellence (the text of her speech follows).

I am very pleased to join the Ohio Association of Two-Year Colleges for your annual meeting. This Association has, over time, involved faculty and administrators of two-year colleges in issues of great importance to higher education. It has done so with a spirit of deep interest and support — two characteristics which contribute meaningfully to the even stronger role in Ohio's higher education system. Such professional commitment is invaluable.

At last year's conference, Governor Celeste challenged you to consider excellence and asked you: "Can you do it any better?" Today I am echoing the question posed to you last year: "You're doing well! Can you do it any better?"

Reaching for excellence involves that very fundamental and quite unsophisticated question: Can you do it any better?

May we focus today — and I hope for some time to come — on the topic of excellence? The word itself has a special cachet — an attractiveness that draws the attention of perhaps even the most cynical. It lures with its promise of better performance and challenges the energy, productivity and thought of those who respond to its call. Excellence invigorates, builds upon itself and sweeps its devotees to the highest levels of endeavor.

Its definition is elusive and multifaceted, but its presence is unmistakable.

Unfortunately, it is often used as a catch-word today, being easily traded as counterfeit verbal stock in place of the valuable commodity it must be. When we discuss reaching for academic excellence and as you ponder its reality in Ohio, we both serve better if we use intellectual honesty as our guide in our search for the "real thing."

In 1979, the Ohio Legislature asked the Ohio Board of Regents to report on the level of academic excellence in Ohio's colleges. The report attested to the presence of many very good academic programs in Ohio and a number of exceptional ones. As part of the research process for that report, we asked the presidents of Ohio's colleges and universities to advise us on how best to encourage the growth of excellence in higher education in Ohio. Their responses, though submitted individually, had four common themes. Those themes are certainly as pertinent today as they were five years ago and I want to share them with you:

I. Recognition of Faculty as the Key Factor in the Encouragement of Excellence

Without the teacher, the researcher, the inquiring mind who is able to challenge other curious minds, the scholarly pacesetter who can motivate his colleagues, there would be no hope of achieving beyond or of even meeting the norm. Foremost in the minds of those who give thought to academic excellence is the insistence that the key factor, the most important stepping stone on the road to excellence lies with the superb faculty, who, under enlightened leadership, offers an outstanding academic program.

II. The Belief that the Vision of Fostering Excellence Needs to Be Girded with an Evaluation of Quality

As one of the Ohio universities stated:

> "It is the careful, methodical marshalling of subjective assessments of quality through the peer program review process which is the key to fostering academic excellence. It is the only means by which higher education can hope to preserve excellence where it exists and build toward it where it does not. Limited resources must be allocated with the fine and loving hand of the skilled horticulturist, here cultivating and enriching, there pruning for more vigorous growth . . . "

III. The Vital Need for Stable Funding over a Long Period of Time

If you have served on the faculty since the beginning of this decade, you know all too well the effects of budgetary instability on programmatic quality. It has been a very difficult period and one that has reflected the serious economic circumstances of the State as a whole.

Fundamental to achieving a general level of excellence in Ohio's higher education system is the stability of educational support. Equipment replacement, library acquisitions, building maintenance, and faculty and staff adjustments which were deferred during the last several years due to severe budget cuts are now *critical needs* for the maintenance of quality. In addition, the student's share of the cost needs to be restored from an all-time high of 47%, to an average share of 30%. While important strides have been made in this direction during the last two years, there is a lot more to be done. No one need remind any of you that quality is not achieved at bargain basement prices — particularly when we are trying to sustain a multi-billion dollar enterprise which serves close to half a million students and countless companies and organizations each year. It takes money to produce the educated people Ohio needs to ensure its future. It is a wise investment for tomorrow.

IV. The Utilization of Ohio's Educational Resources to Address Compelling Statewide Problems

Knowledgeable people are an indespensible resource for the vital and vigorous future of this state. Colleges, and particularly the faculties therein, in Ohio are not only part of a whole, you are Ohio's knowledge industry, a crucial component of the infrastructure of knowledge revolution just as railroads, waterways and highways served the industrial revolution.

In order to be competitive in a world economy, Ohio as a state needs to invest in its *strengths* and focus more directly on those areas of educational, social and economic progress which make Ohio an attractive place to work and live. The time is right also for Ohio's higher education system to identify and build upon the *strongest academic capabilities* of its institutions, doing the best job at the institution's mission, so that faculty and students, and businesses and jobs related to these fields can be retained in or attracted to Ohio. The return on the state's investment will be new research and technology that leads to new products and processes, a pool of the nation's best-trained workers, and a strong leadership cadre.

In order to serve as the vital center for technology and human resource development, higher education must perfect the services it provides to individuals, organizations, the state, and society in general. Ohio's two-year colleges need to achieve excellence in those things they do best. Clearly, the central opportunity which is available to the Ohio Board of Regents is to help Ohio's leaders transform a *good* system of state colleges and universities, which has selected education and research programs which are *strong*, into a system which is *excellent*, with selected centers of special strength which are *superb* and nationally recognized as of that caliber.

This is a time of transition in higher education and for the Ohio Board of Regents. For the past twenty years, the Ohio Board of Regents' goals have been to establish an extensive and accessible system of higher education in this State. That goal, of which the two-year colleges are an integral part, is in place. The next levels of challenge are to ensure strong fiscal support for that system and to increase its quality.

Until the recently proposed budget of the Ohio Board of Regents, funding to higher education was based solely on a common enrollment driven formula system. With the proposal of the "Selective Excellence" program, the State seeks to stimulate an institutional process of strategic choice about mission and its relationship to state needs and the broader social purpose; strategic choice about what each institution does best; and strategic choice about ways in which each serves the people of its community. In short, the "Selective Excellence" program seeks to develop:

- A coherent funding approach in higher education that stimulates *within* colleges and universities new and ongoing processes for establishing and pursuing priorities of strategic purpose;
- An approach that will over the longer term serve to attract and retain the very best faculty and students;
- A means of stimulating greater research efforts and effective job training strategies responsive to the needs of Ohio's businesses and industries; and
- A continuing commitment through our general education requirements and

liberal arts programs, to reinforcing the ethics, values and breadth of understanding, so important to our social well-being.

The Selective Excellence Program has five integrated component parts. Some of them have been in place; others are new.

- **Eminent Scholars Program** — investment in the attraction to Ohio of nationally and internationally recognized faculty who will serve as magnets for the development of strong programs which meet the compelling needs of the state;
- **Program Excellence** — investment in faculty responsiveness to the values of undergraduate quality as judged by measurable results of the learning process;
- **Academic Challenge Program** — investment in internal institutional examination of programs based on quality and purpose, identification of the programs most strategic to the institution and Ohio, and advancement of the level of support for those programs;
- **Research and Technology Challenge Program** — investment in institutional success at securing external dollars for the support of basic research and equipment as a proxy for excellence in research and technological programs;
- **Productivity Improvement Challenge Program** — investment in perfection of the unique mission of the state's two-year campuses with regard to student access and job training services to business and industry.

The Productivity Improvement Challenge is one of particular interest to two-year colleges which merits more attention here.

In a greater context, putting Ohioans back to work requires not only the creation of jobs through economic redevelopment, but also necessitates adquate job training and retraining to improve the productive capacity of the workforce. At the heart of Ohio's human resource development efforts is the state's two-year campus system — which provides programs in general education and business, health, engineering, agricultural, and public service technologies. Our two-year institutions function close to their communities and close to their students. For the most part, two-year colleges are flexible institutions which can readily adapt to changes in the technologies of the work place and the market demands of their local communities, including customized training for specific companies. Historically, excellent blue collar and skilled labor positions were available in Ohio's heavy industry without the evident need for large number of citizens to pursue postsecondary educational opportunities. This is no longer the case. Shifts to automated production and service-based industries have required personnel who have more than a high school education. People now more than ever must be made aware that demands for more education as well as the opportunity to get it are real, that neither location nor finances should be a barrier to their attendance, that special "brush up" or "catch up" courses are available for those persons who need assistance in getting the right start, and the retraining opportunities exist for keeping individuals current in their chosen occupations.

One of this state's greatest resources has been its high quality workforce. With shifts in the numbers and types of manufacturing jobs, historically Ohio's mainstay, has come a parallel need for worker retraining and upgrading to increase employability and to improve productivity. Ohio's companies — both large and small — need training and technical assistance services, to be sure that both management and labor are capable and responsive to changes brought about by a fluctuating economy. The mission of Ohio's two-year campuses is uniquely suited to address these problems in two important ways: (1) to provide access to postsecondary education and job training for youth and adults who for financial, geographic, academic, or personal reasons desire to attend a college in their own community; and (2) to provide direct services to their local communities, including job training and technical assistance for business, industry, and local government.

The Productivity Improvement Challenge Program will provide funds for the support of creative and innovative approaches to achieving excellence in two areas cited above, which may include one or more of the following:

- Training and retraining of the workforce with such efforts as less than degree programs; groups of corporate employees; contract training;
- Achieving better placement of graduates;
- Sustaining faculty and staff currency in their particular occupation or subject-matter field through such means as industry/education exchanges, externships and other types of faculty development;
- Developing and/or refining competency-based curriculum in partnership with business, industry and labor;
- Extending cooperative work programs and internships for students;
- Providing continuing education for the personal and professional development of individuals;
- Developing a strategic academic planning process;
- Developing programs that lead to higher participation rates of underserved sectors of the population (such as minorities, handicapped, rural poor and others);
- Designing and testing programs that lead to greater retention of students.

The Productivity Challenge Program is one significant means of improving the quality of Ohio's two-year college programs. Another very important way is through our positive attitude to the pursuit of excellence. Those of us in the academic community need to sing the praises of those things we do well; strengthen those which we do less well and build to national prominence those which we do best.

For two years you have been asked "Can we do it better?" We all know the answer: It is "Together, yes, we can and, yes, we will!"

Elaine Hairston
Vice-Chancellor for Academic and Special Programs
Ohio Board of Regents
Columbus, Ohio 43215

Issues Surrounding CAI, AI, and Micro-Computer Support for Instructional Processes in Higher Education

Judith D. Gentry

Administrators in higher educational settings are presently confronted with major and costly decisions regarding the implementation of micro-computer support for instructional activities. Two-year community and technical colleges are not exempt from the issues surrounding compatability and cost of the new systems, and due to the high number of part-time faculty, may face some unique problems in implementing programs designed to provide computer assisted support in the instructional process.

Computers touch upon the lives of nearly everyone in modern American society; this is particularly true for those of us in higher education. Minicomputers, micro-computers, word processors, main frames, modems, floppy disks, dedicated and undedicated machines, robots, computer assisted instruction (CAI) and artificial intelligence (AI) are all terms heard in everyday conversations

of students and faculty. At a more abstract level, discussions center on the policy implications of computer uses in the classroom; privacy and unauthorized use; and how one might keep abreast of a mushrooming body of literature and manufacturer software updates.

It is a premise of this paper that effective leaders are proactive rather than reactive, and that facing the computer revolution and attendant future developments in computer artificial intelligence and robotics will require leadership and management skills on the part of college administrators and faculty.

While the issues and concerns might be discussed within the context of the main users, such as students and faculty, there are several issues which overlap all levels of users and include administrative personnel. The most serious of the present concerns relates to the compatability of the systems owned by the college and those owned by students and faculty privately. In a two-year technical college, the second major area of concern focuses on the problems faced by faculty who are trying to teach students to use computers, while attempting to keep abreast of a rapidly changing field often outside one's major area of academic expertise. This paper will attempt to identify, within the context of a two-year college, the chief concerns in utilizing computer support for instruction and instructionally-related activities. Several of these concerns, if not adequately resolved, may impede future integration of computers with the instructional process.

Compatability Issues

Many textbook publishers, in an attempt to meet the demands of college administrators and faculty, are producing computerized test banks and student study guides that may be used to supplement traditional study books and instructor's test manuals. Many publishers are giving floppy disks that contain computerized text banks to colleges adopting their texts. However, the problems of compatibility are serious since many of these materials are still in the developmental stages, have never been field tested, and are designed for use on only one or two specific brands of micros.

At Columbus Technical Institute (CTI), for example, behavioral science packages from two different publishers required an IBM PC Disk Operating System (DOS) Versions of 1.0, 2.0, or 2.1. The recently purchased computer and software version available to the Department uses the DOS 3.0. Neither of these publishers' computer packages would operate using the DOS 3.0. Such incompatibility, not only across computer manufacturers, but also across software versions of the same manufacturer, will make it extremely difficult to review instructionally related software. Had the CTI Behavioral Sciences Department had access to a brand of computer other than the IBM PC, it would not have been possible to review or use the materials.

Student Issues

The increased reliance of instructional staff on computerized support in the teaching process will likely have one major advantage for students. Such materials should be substantially cheaper to purchase than printed study guides, and may even be included as part of the textbook purchase price. If well designed, the student guide could also be tutorial in nature using both graphics and simulations to supplement classroom instruction. The problems for students will result from incompatibility, especially with the large number of micro-computers now in private use. While a study guide on a disk would permit any student who owned compatible equipment and software to study at home, those students who do not own compatible computers would either have to rely on traditional written study materials or on college-owned computers. In a two-year setting, where a majority of students attend part time, often in off-campus locations,

using a college owned computer for study purposes could be difficult — especially when there is competition for terminals during peak hours of usage. Copyright concerns likewise have not been resolved.

Faculty Concerns

Computerized test banks offer tremendous flexibility in test construction, enabling the faculty user to modify standard items, add items and easily and quickly create diverse versions of a test. Several major concerns surface, however, the first and most problematic relates to providing adequate security for the test files on the disks. Most disks are not right protected so that items may be copied from the master file onto a file that contains only the items selected for the test. It is this same feature, however, that makes it possible to copy an entire disk using only a single command. Unlike theft of a single type-written test, theft of the entire test file would compromise the ability of all faculty teaching that particular course to use test bank.

The second major flows from the varying degrees of computer literacy of faculty members themselves. Although most test-construction packages are "user friendly," the time required to identify problems associated with first time usage of the package may prove prohibitive for persons who are unfamiliar, or dislike working, with computers. Related to the literacy issue is a third issue that is somewhat unique to the two-year college setting — the high number of part-time staff used to teach courses, often in off-campus locations. Frequently these faculty must make special arrangements with office personnel to arrange for typing, duplicating and security of tests. When coupled with the need to have access to computer equipment as well as the test-producing programs, procedures will need to be developed for guaranteeing access to a computer, printer, and the program disks, and still safeguard security.

Administrative Concerns

Administrators will probably have to deal with several difficult issues when providing computer support for instructional activities. Making decisions regarding text adoption, varying degrees of computer literacy among faculty, providing necessary instruction and support to both part- and full-time faculty and supplying adequate security for test files without restricting their usage will require more attention and time than is currently given to these matters. This is even more difficult when the use of computer technologies is outside the faculty/administrator's area of academic expertise. Issues of compatability take more staff time than might be desirable — for example, one test package at CTI required nearly 12 hours of faculty time to obtain a sample output, and almost 8 hours of printing time to print the several hundred questions on the disks containing the test items. Such time constraints would be prohibitive in attempting to review the packages of several different manufacturers, assuming that problems of incompatability could be surmounted.

Summary and Conclusions

The focus of the present paper has been issue oriented — and is concerned with some of the advantages and problems we will encounter as we introduce computers into the labor intensive production of educational services in two-year colleges. The problem of incompatibility is presently the largest one looming on the horizon, because its solution lies outside the realm of both college personnel and students. However, two-year colleges, especially technical programs, have as their mission preparing students for careers in technologies where the major manufacturers of computers are often not accustomed to producing materials for academics. Most textbook publishers are attempting to address this

problem by offering packages that are compatible with two or three major brands of computers.

One might ask if the issues identified in this paper are the same as might arise in the future when academics will have better adapted to the new instructional media. Although hindsight often provides greater clarity than foresight, it is a fairly widely accepted notion that much time in introductory courses is spent in teaching the "basics" often through such methods as drill-and-practice. Little disagreement would be found on the notion that higher education is still a labor-intensive industry. One can only think of the possible future of a tutorial program that, when coupled with robotics and the ability to think intelligently would relieve much of the drudgery of classroom instruction, leaving human instructors free to explore, clarify, and encourage students to apply the knowledge they are learning. While the days of low cost, instructor-robots are far in the future, as are computer programs that will react to individual learning styles, there is a definite sense in the two-year college that we are on the threshold of an exciting era in educational advancement.

Issues of copyright, cost, and security will continue to be addressed even though they are not so great as to prevent the integration of computers into the instructional process. Administrators will have to be concerned with reviewing materials from different publishers, and varying degrees of faculty computer literacy, especially in disciplines and departments wherein the major academic pursuit is less compatible with computerization.

Education is noted for the cyclic nature of its instructional "fads." Unlike the traditionally employed practices, however, the integration of computers with classroom procedures is one in which the present, not the past, will determine the nature of future educational practices.

No doubt this will be an exciting era in higher education in which students, faculty, and administrators will learn to use new educational strategies.

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Some Practical Points for Two-Year College Lobbyists

Darrell S. Willey and
James L. McLaughlin

The day of the politically neutral educator in the two-year college is passing. Many have learned that quality instructional programs are the result of concerted and intensive lobbying activity on the part of well-organized college and professional groups. Lobbying activity viewed in the broadest possible sense includes on-sites contacts within the legislative halls, planned visits with legislators at the home precinct, and telephone calls followed up with written communication.

In terms of educational consideration, legislation will typically follow one of three prototypes: (1) enabling, which gives legislature authorization and places responsibility for development or modification of education programs; (2) regulatory, which monitors activity and carries accountability; and (3) fiscal, wherein money is appropriated for program support. It is necessary that we be able to sort and classify pending school bills according to those categories.

Some Practical guidelines are suggested:

Consolidate Your Position

- Involve as many as possible from within the ranks of the College or professional organization when outlining your legislative program.
- Seek out concensus agreements and commitments from the professional association. Strive to emphasize areas of agreement while minimizing areas of disagreement.
- Develop precise position papers on salient issues. Be specific in detailing the problem and your group's solution. Offer significant facts and cite third parties and highly respected sources. Have a disinterested reader check your position paper for accuracy.
- Solicit input and agreement from key personnel from the Board of Regents, the State Department of Education and other official agencies which may be called by legislative committees.
- Shape a bloc or coalition comprised of like-minded groups such as the state two-year college association, college trustees association, association of chief executive and chief instructional officers, OVA, ATEA, etc.
- Rank order the items on your legislative program. Isolate those items that you are willing to trade-off. Similarly, identify those which must stand.
- Monitor all pending bills which may aid or hinder your program.

Telegraphing Your Program

- Familiarize yourself with the personal views and concerns of particular legislators before contact.
- Cultivate the acquaintance of your legislators.
- Acknowledge the limitations of each lobbying strategy such as letters, telegrams, personal visits, etc. Remember that personal visits within the home bailiwick are effective.
- Select, train and involve your most articulate spokesperson.
- Pinpoint your reasons for making appointments with legislators. They or their staff can specifically prepare for you.
- Expect to encounter difficulties when requesting on-site appointments during the legislative session. The hours led are arduous, long and uncertain. Be prepared to wait.
- Do not seek out your legislators on multiple occasions employing different personnel from within your group. Where possible, hold the number of visitors to two or three.

- Do solicit commitment to your position, but do not regard a legislator's unwillingness to commit to your request as bias or opposition. He and his staff may need time to study the issue.
- Remain polite, stick to your position, and remember to exit on a pleasant note.
- Keep the door open for further contact. Negatively bent legislators have been know to shift positions after investigating the issues.
- Deal with legislative assistants if your lawmaker is unavailable. Such personnel are typically knowledgeable.
- Exercise a tactful follow-up by expressing your thanks. Summarize the position of your organization. Treat only one issue per letter.

General Considerations

- Visit with and write legislators on a year-round basis. A backlog of goodwill gained gradually is invaluable.
- Debrief the organization's chief lobbyist on the results of any appointments or communications.
- Study the leadership-followship makeup of your legislature. Identify the role, power, and contributions of key lawmakers.
- Thank legislators for a favorable vote cast. A letter or telegram is typically appreciated.
- Acknowledge that trade-off and compromise are necessary in enacting legislation. Further, it must be acknowledged that politics are basic to governing.
- In communicating your organization's dissatisfaction to a legislator remain pleasant and offer constructive alternatives.
- Dispense only accurate, factual, and documented information to lawmakers.

In brief, the above lobbying protocols will equip the two-year college professional to effectively speak for his organization. Personal and organizational resources can be maximized in the contact process. And finally, effective instructional programs, professional salaries, and kindred educational benefits we enjoy today were ransomed earlier by effective, systematic and successful lobbying efforts.

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PLUS ONE

Competency Testing and the Search for Excellence

David P. Ericson

"A case can be made that the 'dilution' of the curriculum reflects not the failure of the American school but rather its crowning achievement." — David P. Ericson (The article is reprinted with permission from the American Journal of Education, *May 1984, The University of Chicago Press.)*

The controversy swirling about minimal competency testing continues to occupy the good efforts of educators and educational researchers. At the same time, however, the "common core curriculum," the "new basics," and the drive for "educational excellence" have assumed center stage in public debate on the future of schooling in America, and the two movements will probably continue to coexist.

In 1870, only 2 percent of the 17-year-old population completed high school. By 1941, the figure had risen to nearly 51 percent; it reached 76 percent in 1966 and has barely fluctuated from that mark since then. In a strong sense, I want to argue, these escalating and then leveling attainment ratios explain the educational and social demand for minimal competency testing as undergirded by a "criterion-referenced" measurement (CRM) technology.

There has been a public outcry that the high school diploma no longer has the high social meaning it once had. The diploma can lose social meaning when the relationship is tenuous (or is perceived as tenuous) between a student's actual possession of skills and knowledge and the school-attested symbols that represent the student's achievement. There is, however, a second, little understood, yet extremely powerful way in which the symbols of achievement lose their social meaning. There is an abundant literature showing, generally, a positive correlation between high educational attainment and higher earnings, better jobs, or (in depressed times) obtaining a job. What has not been grasped, until recently, is that the possible effect of educational attainment on socioeconomic benefits is *relative* to the rate of attainment of an age cohort at any given system level.

The high school diploma loses all of its value when everyone has it. At far lesser rates of attainment, however, the diploma can have considerable value to the diploma holder. As far as *achievement* goes, it is highly likely that even over 25 years ago a sizable percentage of high school graduates were, in the present jargon, "nonmasters." Their presence went unnoticed, largely because lower attainment rates contributed to strong value for the high school diploma. Further, although the diploma loses all value when attainment rates reach 100 percent, the rapid decline in social meaning probably does not occur until the rate of attainment edges into the upper third of the attainment growth line. If so, lower rates of attainment may still bring significant relative advantages to diploma holders regardless of their actual mastery levels.

The key point of this argument, however, is that CRM minimal competency testing cannot, except indirectly, address the primary problem concerning symbol devaluation — high rates of educational attainment — and thus has probably enlisted strong social support for the wrong reasons. If, for example, nonmaster achievement were boosted to mastery levels through remedial programs, and the high school completion rate remained at about 76 percent, the social value of the diploma would still be relatively low. Though employers and others *might* be able to count on high school graduates' possessing certain minimal skills and knowledge, they still would not be able to use the diploma as an effective screening device, and diploma holders would not be socioeconomically better off than when the achievement and symbol distributions were far more asymmetrical.

In relation to performance standards, CRM minimal competency tests become *indirect* means for affecting the problems of symbol devaluation brought on by high attainment rates: If competency testing results in many nonmasters, the CRM minimal competency movement can actually affect the diploma's social

meaning. Attainment rates — not item, content, construct, decision, instructional, or curricular validity — ultimately lie behind the competency testing controversy in Florida and other states.

If such standards are to be used at all (as seems assured given the political forces at work), the manner of setting scores should vary with the three uses of CRM minimal competency tests. In a diagnostic/remedial setting, the individuals best situated to make competent judgments on setting standards are teachers and content specialists. In determining the promotion of students between levels, a large gray area in which borderline students are allowed to be promoted seems the safest approach, since a decision to retain a student in grade 9, 10, or 11 could result in the student's decision to leave school; too strong a reliance on CRM minimal competency test results is warranted by neither the psychometrics nor the sensitivity of the situation. But in setting performance standards on CRM minimal competency high school *graduation* tests, this testing *should not* be allowed to fulfill its commonly avowed intent — a restoration of the symmetry between the distributions of achievement and symbols. Rather, a political decision must be made concerning what attainment rates are morally, politically, and socially acceptable. If cutoff scores are set so low that nearly all pass, we will have to continue to live with a generally valueless diploma. Hiring and other decisions will be made on grounds external to educational attainment at the high school level, and we will force students seeking the socioeconomic advantages of education to proceed to higher and higher levels of the educational system. We will also, in effect, consign those few who fail to a rather dim future indeed.

At attainment rates of 55-65 percent, the social meaning of the diploma may be restored to robust health. For a time, public bickering over the sad state of American education may even decline ("for a time" only, since we might then anticipate a shifting of concern back to those who are now suddenly failing or dropping out). But from the point of view of individuals who fail, things would not be so rosy. True, it would be far better to be one of many who lack the diploma than (as conditions are now) one of the few. But who are these individuals going to be? If the results from Florida and other states are any indication, they will be, on the whole, individuals from disadvantaged social backgrounds.

It is one thing simply to "get tougher" with academic course graduation requirements, as many states are doing, but quite another thing to elevate standards with some understanding of the impact that such new policies may bring about. For one thing, it is not clear what role, if any, CRM will play with regard to the "new basics," which focus on higher-order intellectual proficiencies and capacities. It is too soon to say that adequate CRM *maximal* competency tests — for the mass market — cannot be developed, but their appearance is yet to be discerned. In those states that have adopted newly elevated course requirements for high school graduation, but that are without or choose to drop minimal competency programs, criterion-referenced testing *per se* is likely to have lesser effects on attainment rates, and, hence, the value of the diploma.

Effects of Requirements

But if competency testing becomes less of a driving force on attainment rates, the new course requirements in and of themselves may very well assume that task. How will all students complete all the academic requirements that form the model high school curriculum for the new basics? Is it desirable for all students, irrespective of their destination or plans after high school? If the answer is a collective yes, as it now seems to be, then we had best be prepared for the likely consequences. First, we may anticipate a decline — initially at least — in the high school graduation rate. For the past several decades, the school-leaving rate has been about 25 percent — and that under the alleged reign of the "watered down," "elective-ridden" curriculum. School leaving — despite the socioeconomic consequences — may become a more attractive alternative for those who lack the wit or will to traverse the more demanding academic curriculum. And should we discover that an unusually high proportion of lower-socioeconomic-status individuals form the new group of nonattainers, we will confront once again a momentous social choice. Is higher academic achievement in our society of such keen desirability that we can afford to lose precisely those groups whose relative exclusion from the mainstream of the American school launched the struggle for equality of opportunity a generation ago, a struggle that many would regard as one of America's finest moments?

A case can be made that the "dilution" of the curriculum (if in fact it was diluted) reflects not the failure of the American school but rather its crowning achievement. At a crucial time in American history, the schools responded to those who were at a disadvantage educationally, socially, and economically not by excluding them from the regular curriculum, nor by setting up a rigid separation of academic tracks, but by attempting to integrate the previously excluded into the mainstream of the schools, and thus American life. So understood, the sacrifice of some overall educational achievement for everyone and the devaluation of the diploma through rising attainment rates were a small price to pay for the great social gains achieved. If the movement toward maxima places those gains in jeopardy, we may once again have the valuable diploma and a strengthened technological and scientific elite, yet at what costs to our social, political, and moral ideals?

Multiple Possibilities

But this may not happen (we should hope). A growing group of nonattainers may not be skewed in any direction by class, ethnicity, or race. It just may be that the "diluted" curriculum has enabled those groups who were previously at a disadvantage educationally to compete effectively with those formerly advantaged. If, however, the attainment rate decline is significant, the diploma may regain its value, but would this state of affairs find public approval? To a nation now accustomed to high attainment rates, it is doubtful. The success of the schools in implementing a truly rigorous curriculum may well be seen as the failure of the schools once more — with new pressure building to "ease" standards.

The choices we confront extend well beyond any facile concern for minima and maxima; in every case, their consequences will cause pain. The question is whether we can locate the choice that causes the least pain possible and find the courage to follow it.

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PRACTICUM

The Journal's "Practicum" section deals with things tried in other two-year colleges. Two of the outstanding presentations at the 1984 Fall OATYC Conference

at CCC, in Cleveland follow. Betty Dietsch, Marion Technical College, and David Humphreys, Cuyahoga Community College, share a few successful ideas tried in the composition classroom.

Developing Thinking Skills in the Composition Classroom

Betty M. Dietsch

"The growth of the human mind is still high adventure, in many the highest adventure on earth," Norman Cousins once said. As instructors, most of us would be inclined to agree, but it is doubtful if the majority of our students would. Thus the teaching of thinking skills in a composition classroom is a real challenge.

An article by Barry K. Beyer, "Improving Thinking Skills" (Phi Delta Kappan, April '84), nudged me to look for more ways to teach thinking directly. Beyer warns against the dangers of overload; instructors need to simplify whenever possible. He suggests they first go through a procedure that they ask their students to do. By recording their own actions, instructors can better understand the skills required for each step of a task. Then they can encourage students, after completion of a step, to analyze the step and the reason for it.

I have adapted this idea to teaching the process of writing: prewriting, writing, revision, and proofreading. Students practice one step of the process in successive sessions. Each time we consider the step and its purpose. The analysis not only simplifies and clarifies, it also gives a more realistic expectation of a rough draft. They learn that the purpose of a rough draft is to capture ideas, that rough drafts are typically incomplete and error-ridden. This realization helps beginning writers to relax and concentrate on developing thoughts rather than correcting superficial mistakes. Later on, many say they feel less pressured although they spend more time on revision than ever before.

We also discuss the concept of "an independent learner," a goal that Beyer says is "to bring students to the point where they are willing and able to use thinking skills independently and effectively in a variety of settings." Granted, this is a tall order, but I attempt to do just that with "Test Yourself" exercises, small group discussions, role plays, and case problems, found in *Writing for Results* (Holt, Rinehart and Winston, 1985). Through these activities students learn to recognize fact, inference, and value judgment as well as logical and emotional fallacies. They develop critical thinking skills as well as problem-solving skills, individually and collaboratively.

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Computers in the Composition Classroom

David M. Humphreys

Personal computers are becoming smaller, cheaper, smarter, infiltrating every phase of our home, leisure, and business lives. They are even appearing in our composition classrooms where they are having a dramatic impact.

At the Eastern Campus of Cuyahoga Community College, we have begun two projects designed to explore the ways in which computers can be incorporated into the English curriculum. First, in several sections of English 101, all meetings of the class take place in the Apple computer lab; all students are asked to write their papers using the Bank Street Writer, an elementary word processing package. Second, the students in one section of developmental English have been provided with lap-sized, portable computers. These computers were purchased with funds from the College and the Urban Initiatives Grant. They are unique in that they run on batteries, preserving student essays even when the machines have been turned off. Students, therefore, do not need disk drives or tapes, can use the computers either in class or at home, and can save their writing until they get to a printer in the lab.

We are learning from these projects that students are more highly motivated, spend more time revising their papers, and turn in better essays than those who do not use computers. Because the computer takes away the penalty for errors or changes of heart, students are more willing to experiment. They can separate the functions of drafting, revising, and editing to pay fuller attention to each function. In the drafting phase, students can pursue and idea without stalling over questions of grammar and spelling, knowing that they can come back to them at a later time. In the revising stage, students learn to make much more extensive revisions than they would have using the traditional pen and paper. In the editing phase, the students learn to use the special functions of the word processor to help them find and correct grammar and spelling errors.

The computer, however, has also become a valuable tool for teaching the concepts of composition theory. When teachers use computers hooked up to large-screen monitors or video projectors, they can easily demonstrate prewriting activities, sentence combining, word choice, sentence structure, and the like. More importantly teachers can model their own writing process. A few teachers may have done some of these activities before using chalkboards or overheads; however, the computer permits the teacher to work with larger compositions and to insert, delete, and reform text immediately. The end result is that students make the transition from paradigm to production more easily and more effectively.

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FORUM

ISSUE: How Far Should the Two-Year College Go to Provide Student Activities?

Provide Student Activities to Supplement Learning Experience

William Hussey

With diminished student enrollment, budget cutting becomes necessary. One

of the affected areas is student activities. Our question: How far should the two-year college go to provide student activities is addressed by William Hussey, Lima Technical College, and James Russell, Central Ohio Technical College.

The debate over the extent, or even the necessity, of student activities programs at two-year commuter colleges has lingered for some years. Those who would argue that the very nature of the two-year commuter student precludes the need of a college-provided activities program too often present specious arguments to support their case. They claim that the social, cultural, and recreational support systems for these students are provided by the community of which they are already an integral part; therefore the college is relieved of any responsibility for providing programs in these areas. On the surface, this argument alone is sufficient to discourage many budget-conscious administrators from promoting the development of a comprehensive student activities program.

Although I would be the first to recognize that there are distinct differences between the two-year commuter student and the four-year resident student, I reject the notion that the two-year student neither does not need nor is indifferent to a college-provided student activities program to supplement his/her learning experience. I believe data collected at Lima Technical College and a number of other two-year colleges confirm my opinion in a convincing manner. As part of a recent institutional self-study, Lima Technical College administered the ETS Student Reactions to College (SRC) survey. The results revealed that students are not as indifferent to student activities on campus as some would argue. In truth, nearly half of those surveyed responded negatively to the following survey statement: *In general, I feel organized social activities at the college are not necessary because enough is going on in the surrounding area.*

In addition, less than 50% of the students felt that they were at college to attend classes and did not need a student activities program. The comparative data provided by ETS from other two-year colleges indicate that Lima Technical College is not an exception. The students have spoken. The need is there; it is incumbent upon the two-year colleges to respond to that need.

Because of the unique nature of the two-year commuter student, the establishment of a vital and successful student activities program may be more difficult than it would be on a resident campus where there is, in a manner of speaking, a captive audience. The two-year college, therefore, must be more aggressive, "proactive" if you wish, in its efforts to implement various student activities. It must go to the student to ascertain their specific interests and solicit their involvement. It must be prepared to respond to non-traditional students with non-traditional programming. It must be as flexible and receptive to changes in student activities as it claims it is in its instructional programs.

Yes, two-year college students are different in many ways, but in the area of student activities they may not be substantially unlike their four-year counterparts. Many look to the two-year college for support and fulfillment; they are seeking a comprehensive learning experience including participation in extra-curricular activities. It is the colleges' responsibility and obligation to meet the students' non-curricular needs and to commit both adequate financial and human resources to that end.

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Personalize the College Experience

Jim Russell

The field of Student Personnel Administration has come a long way in its development in the past twenty-five years. Through the years, under various titles, someone in this professional capacity was responsible for challenging students and for providing opportunities for personal growth. Today, this profession is recognized as an identifiable specialty. The many programs, services and activities which have been established to enhance the development of students have been recognized as an integral part of the two-year institutions' educational process.

Both traditional and non-traditional age college students need to be exposed to the total campus environment. Student personnel professionals have a vital role in assisting in personalizing the college experience for the students and contributing to their individual development. Many programs are designed to compliment the learning experience in the classroom. Students have the opportunity to implement the concepts they have learned. Of course to provide opportunities to expose students to experiences and enable students to investigate such experiences, the two-year institution must show a commitment by providing adequate staffing and financial resources.

Through the years, Student Personnel professionals have been providing, and will continue to provide, a model for students which broadens the educational concept to include a student's well-rounded development — physically, socially, emotionally, spiritually as well as intellectually. Through the student's active responsible participation in this model, one can realize mature growth and development.

Those two-year institutions leading the way in providing quality Student Life Development programs have incorporated this concept into the institution's mission. They have also reaped benefits from this commitment by using the programs as a recruiting and retention tool.

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REACTION

The Journal encourages letters and articles in response to its contents, policies and OATYC activities. The following response is Lloyd Monnin's own reaction to his 1984 award-winning article Interdisciplinary Social Sciences: A Pillar of General Education *with some updating.*

Interdisciplinary Social Sciences: A Pillar of General Education Revisited

Lloyd Monnin

A reading and re-reading of the article *Interdisciplinary Social Sciences: A Pillar of General Education*, I wrote five years ago, has occasioned a number of reactions. At that time I traced the origin and history of the "Liberal Arts," the reason for and the rise of General Education, the factors necessitating the reforming of General Education even before it had matured with an identity of its own, some of the changes which had to be made and finally highlighted the role that interdisciplinarity can play in effecting these changes.

At the risk of being labeled conceitful, allow me to say that, for the most part, I agree with the points I made. I would like at this time to look at some of the assumptions underlying the points and arguments I developed then. I, like many another in education, went on building structures beautiful in design and most functional in meeting everybody's personal needs/desires today — now, while oblivious of the foundations on which our structures rest. Allow me to present a few pictures of those foundations and raise some questions concerning their continued appropriateness for the high-rise (higher education) structures we build on them.

What is the basic purpose of education in our American society? Is/was it designed to meet societal or individual needs? Both? True! But was not the founding fathers ultimate motivation societal? Then, why a structure today that has individuals (and educational institutions) vying for funding to meet private and personal career and job-oriented goals to the detriment of social, societal and political goals? Ought not the public support these latter at a higher rate than it does the vocational/career and professional goals of individuals? Ought not the higher education structure be designed to effectively call into question precisely these kinds (and other equally anti-social and political) practices rather than join the ranks of those vying for support?

Hutchins argues that liberal education, which came into being to meet the needs of the free people of ancient Greece, is still, since all Americans are free, the most appropriate form of education for all. But freedom, to be truly enduring, needs necessarily to be political and personal as well as economic. Is not our high-rise educational structure functioning (along with a very large segment of our society) as though economic freedom is adequate and sufficient — and that it can and will guarantee political and personal freedom?

While the economic freedom and security of all is an unquestionable good which the government and society needs to support and protect, can it, dare it be the primary function of the educational structure? What happens to political and personal freedom under such a pattern of education? With all the current emphasis on career and job-entry skill training, what will happen to education for citizenship and personal development and responsibility? With the increasing number of dual-breadwinner households on the one hand and the progressively increasing emphasis on vocational education and the increasing numbers in welfare lines, one must ask whether, as a society, we are not, contrary to a basic purpose of American education, actually educating for, or at least producing once again a class society. Short-sightedness begets the necessity for more short-sightedness.

While the pendulum seems slowing for a reverse of direction, there seems little doubt that Liberal and General Education have received adequate or proportionate emphasis in recent decades. Interdisciplinarity is an instrumentality created by educators supposedly to remedy the shortage of time alloted the liberal and general studies components of our educational programs. It is my belief that it has great inherent value as a regular approach to educating and should not be seen as a shortcircuiting scheme for coping with a dearth of time. But relatively few college instructors are appropriately prepared for or are willing to put forth the effort required in this approach. Hopefully something will be done about this problem soon.

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INFORMATION FOR PROSPECTIVE CONTRIBUTORS

The *Journal* encourages submission of material for any of its sections by faculty, staff, administrators and/or trustees of any of Ohio's community, general and technical, junior, regional and technical campuses. The *Journal* is particularly receptive to articles of general profession importance in the areas of administration, instruction, and baccalaureate or technical studies for two-year institutions.

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Submission deadline for the next *Journal* is September 27, 1985.

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